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Srovnání vybraných primárních emisí na finančních trzích
Comparison of Selected IPOs in Financial Markets

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ESPINASSE, Philippe. *IPO: A Global Guide*. 2nd ed. China: Hong Kong University Press, 2011. 408 p. ISBN 978-9888083190.

MISHKIN, Frederic S. *The Economics of Money, Banking, and Financial Markets*. 10th ed. USA: Addison-Wesley, 2013. 720 p. ISBN 978-0-13-277024-8.

VALDEZ, Stephen and Philip MOLYNEUX. *An Introduction to Global Financial Markets*. 6th ed. USA: Palgrave Macmillan, 2010. 529 p. ISBN 978-0230243095.

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1 Introduction

An Initial Public Offering is the first time a company sells its shares to the public to raise money in the capital markets. The system of issuing new shares through IPO includes the registration-based IPO system and the approval-based IPO system, which require different information disclosure for listed companies. An IPO is a great way to raise money and greatly enhance a company's reputation. However, not all companies are suitable for an IPO, and some companies grow slowly after a successful IPO. The time, place and amount of listing are all essential factors, which require the company to choose the best time for IPO on the premise of good preparation, so as to promote the long-term stable development of the company and bring more abundant profits to investors.

The purpose of this paper is to compare the differences between the two IPOs through data. The thesis consists of five chapters, including introduction and conclusion. In chapter two, this paper introduces the basic information and issuing process of IPO. Chapter three focus on the IPO process, IPO price and the impact of two selected companies. The two selected companies are Commercial Bank of China Limited and Alibaba Group Holding Limited. Chapter four introduces the definition and difference of the two IPO systems, and compares the two selected IPOs through a large number of data. Chapter four compares the basic information, profitability, stock price and financial statements of the two stocks.

By comparing the data and information of the two stocks, we can understand the history and current situation of the two stocks, which is helpful for us to predict the future trend of the two stocks.

2 Characteristic of IPO

IPO is an abbreviation for Initial Public Offering, which refers to the process by which an enterprise makes an initial public offering of additional shares to investors through a stock exchange. Some small businesses or those with cash flow problems may choose to issue an IPO to raise funds for business development, but they will also surrender part of their ownership.

2.1 Participant

Some small companies that are just starting will choose to go public because they lack the capital to keep the company running normally. When some large companies lack the capital to expand their market, they also choose to go public, and the company's business activities tend to become more.

It is difficult for small companies to list on the Chinese securities market because China has higher standards for companies participating in IPOs than the United States, and many good Chinese companies choose to list in the United States because they do not meet the listing standards set by the China Securities Regulatory Commission.

China's capital market has an approval-based IPO system, and proposed companies must meet various profitability requirements. The U.S. capital market has the registration-based IPO system that requires much lower financial requirements for companies than the approval-based IPO system. The U.S. has lower standards for how profitable a public company is, its size, and the number of physical assets. Investors are more concerned about the prospects of the company.¹

For example, Sina Weibo, which has hundreds of millions of users, lost \$47.4 million in the quarter before it went public, so it does not qualify for a listing in China. Sina Weibo's shares rose 2.6 times after the company chose to list in the U.S.²

¹ Source: Li Xuan, Guo Ying, Xu Hao. *Analysis of the reasons and trends of Chinese enterprises going public in the United States* [J]. Economic Research Guide, 2019 (22), 95-98. ISSN: 1673-291X.

² Source: Sina Weibo official statistics, Nasdaq.

2.2 Best time for IPO

The owners of privately held companies have great freedom to make decisions on their own without having to explain or explain every major decision to the public oversight committee and shareholders, so they are rarely bound by those rules.

But publicly held companies cannot be so free. It must publish financial statements to shareholders every quarter, and it must also provide a comprehensive summary of financial information for the entire year in its annual report. The Sarbanes-Oxley Act introduces a number of new standards, such as stricter financial statement disclosure mechanisms, ethical standards that senior financial officers must adhere to, and the need for companies that engage in unethical activities identified in the provisions of the law A series of more serious consequences.

2.3 Companies suitable for listing

A large number of cases have proved that not all companies are suitable for IPO, and IPO may cause unnecessary losses to companies. A company that meets the requirements for IPO should have these conditions. It has a very favorable development prospect, provides an innovative product or service, and meets some strict financial requirements.

After the company reaches the listing standard, it should observe the situation of the industry.

The company needs to observe the general stock market situation and observe whether the approximate price of the stock on the stock market is reasonable at this time.

The company needs to observe the market situation of the industry. Companies need to observe the stock issuance of the same industry to see how this industry's market situation is. Industries supported by the state or industries with better growth space in the future are suitable for listing. Enterprises in industries with excess capacity and severe pollution are facing challenges.

Companies need to observe the frequency and scale of all IPOs in the market and understand the number of IPOs in the same industry. If many other companies want to issue IPOs at the same time, and the IPO is not conducive to attracting investors, now is not a good time to issue.

2.4 Intermediary of IPO: Issue manager

If a company thinks it has met these requirements, the first thing to do next is to find a *securities underwriter*.

Because IPO companies have no IPO experience, they need issue managers, such as investment companies to act as intermediaries between the company's securities sales and the investment public. Banks such as Goldman Sachs and Morgan Stanley are such institutions. They are the main participants in the IPO. They will cooperate with the company to ensure that the company has the necessary legal documents and appropriate financial support for the IPO, and they should be cautious.

Generally speaking, the more underwriters, the better, and companies are always willing if there are more organizations to help them market their stock.

In addition to Internet sales directly to investors, the remaining part is corporate sales to significant funds, insurance, investment banks, and other institutions. Institutions and retail investors are relatively different. Institutions are very cautious, will not casually read a prospectus to buy a stock order, generally have to communicate with enterprises, underwriters, and enterprises with a face-to-face in-depth understanding before considering a subscription. The most significant difference between institutional stock buying and direct Internet marketing is the other communication and explanation of these links, which require the underwriter to play a role in them. Underwriters need to understand the qualifications of the issuer, the needs and selection tendencies of investment institutions in order to match buyers and sellers better.

2.5 Advantages and disadvantages of the IPO

A corporate IPO is a two-sided event that has both advantages and disadvantages. Before going public, a company has to analyze whether it is suitable for an IPO.

2.5.1 Advantages of the IPO

This part introduces the advantages of IPO.

Fund raising

It's a good way to find financing, public offering can attract more investors and raise more funds. Moreover, these funds do not have to be repaid within a specified period. Entrepreneurs can also use these funds to improve the capital structure of the business.

Risk transfer and getting rid of bank control

IPOs increase the liquidity of shareholders' assets, allowing companies to escape the control of banks, and companies no longer need to borrow from them. There is also a sharing of the business risk, e.g., the owner of the company sells a part of the company to the public, which is equivalent to having the public come and take the risk with themselves.

Easy to merger and acquisition

Because listed companies can always issue more shares, which can be issued as part of the transaction.

Attract top talents and good employees

Trading in the open market means that enterprises implement employee stock ownership plan, which can motivate employees to work, cultivate employees' loyalty to the company, and attract excellent talents with good returns.

Increase reputation

Trading on the stock exchange can increase the company's visibility and build a good reputation image and also carries a considerable amount of prestige which strengthens the company to compete with other companies.

The listing of enterprises is an essential thing; it can win the attention of the majority of investors and news media and have a more significant impact on enterprises. Whether a company holds a new product launch or a press conference, listed companies are more likely to get the business community's attention, investors, the press, and consumers.

2.5.2 Disadvantages of the IPO

A company may have to pay expensive expenses to issue an IPO.

Because of public issuance, listed companies must constantly submit reports to the Securities and Exchange Commission and listed stock exchanges, so they have additional reporting responsibilities.

Because listing means that the company changes from private ownership to public ownership, the interests of board shareholders should be considered when making decisions, so there is pressure on management. Once an enterprise goes public, its managers have to give up some of their previous rights.

Increasing shareholder demands for profits and growth rates will put much pressure on the management of listed companies.

The transfer of ownership can enable outsiders to control or even dismiss entrepreneurs, which greatly increases the difficulty of managing the company, reduces the autonomy, threatens the operation of the company to a certain extent, and increases the uncertainty.

Companies are required to inform shareholders of the company's information every so often after listing, increasing transparency while exposing many company secrets.

2.6 IPO process

We use the United States as an example to describe the process of issuing an IPO.

2.6.1 Selection of an issue manager

When choosing underwriters, we need to consider the general reputation and expertise of investment banks as well as the issuance expertise of investment banks. The lead underwriter plays an important role in IPO planning, pricing and IPO.

2.6.2 Registration of IPO with the SEC

The company is required to file a registration statement with the SEC. The registration statement includes the public information portions of the prospectus provided to each purchaser of securities, as well as those portions of the prospectus that are not required to be provided to the public but are required to be filed with the SEC. In this process, the underwriter is responsible for verifying the information.

It is illegal for a company to sell securities to the public without registration. The company's issuer directors, principals, underwriters, accountants, appraisers, and other experts

must sign the registration form. Investors who suffer losses as a result of misstatements or omissions in the registration form may sue these signatories.

2.6.3 Publication of prospectus

A prospectus is a written notice of a public offering of shares by a joint-stock company. The prospectus is one of the necessary documents for the issuance of shares, subject to the review and approval of the securities regulatory authorities, and is also an essential reference for investors to subscribe to the company's shares. The prospectus consists of five main parts.

The first part is the situation of the company. It includes the company's history and nature, organization and personnel list.

The second part is the company's business plan, which mainly shows the company's capital distribution and revenue and expenditure budget.

The third part is the company's operation and forecast. This part mainly shows the varieties, scope and methods of the company's commodities, as well as the company's analysis and prediction of the market.

The fourth part is the basic information of the company's stock. This part mainly shows some basic data to investors, such as the amount of capital stock and equity structure, dividend distribution, amount of each share and issuance date.

The fifth part is the company's financial situation, which mainly includes the company's registered capital, balance sheet, income statement and cash flow statement. Investors can analyze the company's situation through its financial statements.

2.6.4 Roadshow:

The roadshow is a widely used method of promoting securities offerings internationally and refers to the promotional and introductory activities of securities issuers for institutional investors before issuing securities in the primary market. It is an essential means of promoting successful stock offerings under conditions of full communication between investors and financiers. It facilitates communication and exchange between investors and the issuer of the stock and increases the stock's potential value. The primary purpose of the roadshow is to promote the company, sell on the spot, and attract the dealers' attention to get them interested by showing them their products and sales methods.

The main format of the roadshow is a promotion meeting. At the promotion meeting, the company introduced the company's performance, products, and development direction to investors in detail. It fully elaborated on the investment value of listed companies, allowing investors to understand the company's specific situation in-depth and answer questions of concern to institutional investors. With the development of internet technology, this traditional roadshow has simultaneously moved to the internet.

2.6.5 Pricing the securities

The international financial community recognizes IPO pricing as one of the most confusing dilemmas because the most successful IPO pricing is where the issuer can make a smooth offering at the highest price that investors can tolerate. At the same time, a failed offering or an offering at too low a price means a pricing failure. IPO pricing is a gaming behavior under incomplete information conditions.

IPO pricing is the most basic and essential content in the IPO, the high or low IPO price determines the success or otherwise of the IPO, and also affects the fundamental interests of the participating parties, and the specific performance of the stock after listing.

However, if the issue price is too low, it may damage the interests of the original shareholders, and the amount of funds raised is small, making it challenging to meet the company's financing needs and detrimental to the long-term development of the company. If the issue price is too high, it will increase the risk of the underwriter's issue and the difficulty of the issue, and will also increase the cost of investors, suppress the enthusiasm of investors to subscribe, which ultimately affects the issue of the company's financing needs.

A study by Michelle Lowry and G. William Schwert (2001) shows that the average first-day return of about 15% in IPOs in the US stock market reveals a bias in IPO pricing that tends to undervalue relative to secondary market prices.

2.6.6 Selling the securities

The date of sale must be selected carefully according to the situation of the financial market, and the final prospectus must be attached to the delivery of securities.

3 The IPO process of selected Corporations

This section focuses on the IPO process of two enterprises, Alibaba Group Holding Limited and Industrial and Commercial Bank of China. It also includes trading data on the first day of the IPO and stock price changes in the first year of the IPO. These two IPOs have had a very significant impact on the market.

3.1 Alibaba Group Holding Limited

Alibaba Group initially wanted to list in Hong Kong, but the Hong Kong Stock Exchange did not allow the partnership system set up by Jack Yun Ma, and Alibaba then listed on the New York Stock Exchange.

3.1.1 The IPO process of Alibaba Group

In July 2013, there were market rumors that Alibaba Group had hired Goldman Sachs as a listing sponsor and submitted a listing request to the Hong Kong Stock Exchange. On 23 July 2013, Alibaba Group said that it had no plans to list on the Hong Kong Stock Exchange for the time being and had not yet set a time and place for its registration. The Alibaba Group chose to implement the partnership system because of Alibaba's control dispute with Yahoo. Jack Yun Ma asked shareholders to give him and the Alibaba executive team a majority stake in the company to ensure control of the management and the stability of the company's management.

On August 18, 2013, the Wall Street Journal reported that Alibaba was negotiating with the Hong Kong Stock Exchange on ownership.

According to an evening report on the "South China Morning Post" website of September 2, 2013, the Hong Kong Securities Regulatory Commission will veto any changes that would be deemed to grant Alibaba an exemption from existing listing requirements. That vetoed the possibility of Alibaba's listing in Hong Kong.

On September 10, 2013, Ma Yun, chairman of the board of directors of the Alibaba group, officially announced the Alibaba group partnership system by internal mail.³ According to the Hong Kong Economic Daily, the partnership system is that the Ali Group's subsequent

³ Partners must be senior executives with at least five years of experience in the company, understand the company's operations, and share the company's culture, with the consent of three-quarters of the partners.

proposal on the Hong Kong Stock Exchange will allow partners, including Jack Ma, to appoint more than half of the directors after registration to ensure the control of the company.

On October 10, 2013, Alibaba Group's CEO said in an interview, "We decided not to choose to list in Hong Kong." This interview is the first time Alibaba Group has made a public statement about its IPO project. The reason for abandoning the Hong Kong listing was the Alibaba Group's partnership system, which Jack Yun Ma wanted to use to ensure that the Alibaba founder had absolute control over the senior management team.⁴ The partnership was the most challenging part of Jack Yun Ma's choice in listing Alibaba, which explains why Alibaba abandoned the first option of listing in Hong Kong and chose to list in the US.

On March 16, 2014, Alibaba Group announced that the launch company would go public in the United States.

Early in the morning of May 7, 2014, Beijing time, the Alibaba group submitted an IPO prospectus to the United States Securities and Exchange Commission (SEC), seeking to issue approximately 12% of the shares, based on an estimated market value, and funding is expected to reach more than \$ 15 billion.

On June 16, 2014, Alibaba updated the SEC prospectus, published for the first time the list of "Alibaba Partners" and the overall performance for the 2014 financial year. The partner team is made up of 27 people, including Jack Yun Ma, Cai Chongxin, Lu Zhaoxi, Peng Lei and others.

Early in the morning of Beijing time on the 27th, the Alibaba group submitted a supplementary prospectus document to the SEC. Documents show that Alibaba has decided to list on the New York Stock Exchange under the symbol "BABA".

On September 06, 2014, Alibaba Group finally submitted an updated prospectus document to the United States Securities and Exchange Commission (SEC), indicating that the group will be listed at a price of US \$ 60 to US \$ 66, which will hit the US market. The largest IPO transaction ever carried out at market value.

⁴ Reference: Hong Kong Listing Rule 8.11

Prospectus documents show that Alibaba Group will raise \$ 24.3 billion through an IPO. Based on the median of the price range, its market value will be approximately \$ 155 billion. According to data provider Dealogic, Alibaba will be the largest IPO in US history.

On September 9, 2014, Alibaba Group officially started its roadshow before listing, communicating with investors and recommending stocks.

On September 19, 2014, the Alibaba group set its IPO price on Thursday at \$ 68, which is the upper limit of pricing and the price range, so the transaction will create the largest IPO in the stock market to the world.

On September 19, 2014, Alibaba was listed on the New York Stock Exchange in the United States. It closed at \$ 93.89 on the first day, an increase of 38.07% over the issue price. Based on the closing price, its market value has crossed \$ 230 billion. It took Alibaba 15 years, from starting CNY 5 billion to the market value of about 230 billion US dollars.

Alibaba's IPO underwriters are Credit Suisse, Goldman Sachs, Morgan Stanley, Deutsche Bank, JP Morgan Chase and Citibank.

3.1.2 IPO price of Alibaba Group

On September 19, 2014, Alibaba Group went public on the New York Stock Exchange with an IPO priced at \$68. BABA opened at \$92.7 on its first day of trading, with a high of \$99.7 and a low of \$89.95, closing at \$93.89. On December 31, 2014, BABA closed at \$103.94, a 10.7% increase in its first trading year.

The Graph3.1 below shows the change of Alibaba's stock price in 2014.

Graph3.1: Stock price of Alibaba in 2014



Source: Nasdaq BABA Advanced Charting, <https://www.nasdaq.com/market-activity/stocks/baba/advanced-charting>

The Agence France-Presse described Alibaba's first day on the market as a "roaring performance". The French newspaper *Les Echos* also featured the headline "Alibaba goes public on Wall Street" prominently on its front page and provided comprehensive coverage of Alibaba Group's listing.

3.1.3 Impact of Alibaba listing

Alibaba's IPO is a significant historical event for Chinese Internet companies to list overseas. American brands can use this platform to sell their products directly to Chinese consumers and gain access to a large number of Chinese consumers, and Alibaba has built a mutually beneficial platform to spread Alibaba's fame around the world, making it easy for Chinese consumers to buy global products and for brands to get many orders.

3.2 Industrial and Commercial Bank of China

ICBC, which listed on the Shanghai Stock Exchange and Hong Kong Stock Exchange together on the same day, is a state-owned enterprise, so it is less challenging to list than Alibaba.

3.2.1 The IPO process of ICBC

On April 18, 2005, the State Council of China formally approved the restructuring plan of ICBC.

On April 21, 2005, Huijin Company injected the US \$15 billion into ICBC.

On June 27, 2005, ICBC signed a transfer agreement with Huarong, Xinda, Dongfang, and Changcheng asset management companies with a total amount of RMB 459 billion in suspicious loans.

In March 2006, ICBC selected five IPO underwriters. The lead underwriters of the IPO are China International Finance Co., Ltd., Guotai Junan Securities Co., Ltd., and CITIC Securities Co., Ltd.

In April 2006, ICBC brought in Goldman Sachs Group, Allianz group, and American express three overseas strategic investors. Three overseas investors to subscribe for A-shares and H-shares of ICBC have 8.4412% of the shares issued before release.

In July 2006, the senior leaders of ICBC approved the plan of "A+H" listing at the same time.

On July 18, 2006, ICBC formally submitted an application for H-shares listing to the Hong Kong stock exchange.

On September 21, 2006, ICBC accepted the Hong Kong Stock Exchange hearing and successfully passed the H-shares IPO application.

On September 26, 2006, the application for A-shares issuance was examined and approved by the CSRC. On October 9, 2006, the Industrial and Commercial Bank of China started the global roadshow of H-shares. On October 16, 2006, the Industrial and Commercial Bank of China began to issue H-shares to Hong Kong people and simultaneously issued A-shares in mainland China.

On October 22, 2006, ICBC finally determined the offering price, which was priced at the highest end of the price range (3.07 CNY for H-shares and 3.12 CNY for A-shares).

On October 27, 2006, industrial and Commercial Bank of China (601398.SH, 1398.HK) was officially listed and traded on the main board of the Shanghai Stock Exchange and Hong Kong stock exchange, which is the first A-shares and H-shares listed at the same time in Chinese history. As the largest IPO in the world at that time, it marked another significant progress in the reform and development of China's banking industry and capital market.

3.2.2 IPO price of ICBC

At 9:29 a.m. on October 27, 2006, the president of the industrial and Commercial Bank of China sounded the opening Gong in the trading hall of the Shanghai Stock Exchange, marking the official listing of the industrial and Commercial Bank of China in the A-shares market. At 9:30, the screen of the trading hall showed that the opening price of ICBC was 3.40 CNY, 8.97% higher than the issue price of 3.12 CNY. Half an hour later, the screen of the stock exchange of Hong Kong showed the newly listed company code of "1398 industrial and Commercial Bank of China". H-shares of industrial and Commercial Bank of China opened at HK \$3.62, up 17.9% from the issue price of HK \$3.07.

ICBC's performance on the first day of listing was relatively stable, with A-shares opening at 3.40 CNY and closing at 3.28 CNY, up 5.13% from the issuance price. ICBC issued 35.39 billion H-shares globally, including 1.769 billion H-shares in Hong Kong and 33.621 billion H-shares for international sales, with the issue price of HK \$3.07 each. Meanwhile, ICBC issued 13 billion A-shares in mainland China.

On December 29, 2006, ICBC's closing price was 6.20CNY, and the share price rose approximately 89.02% in the first year of listing.

The Graph3.2 below shows the changes of ICBC's stock price in 2006.

Graph3.2: Stock price of ICBC in 2006



Source: Sina, <https://finance.sina.com.cn/realstock/company/sh601398/nc.shtml>

3.2.3 Impact of ICBC listing

Industrial and Commercial Bank of China (ICBC) has entered the domestic and international capital market in an all-round way, which not only opens a new chapter for modern financial enterprises but also brings new vitality and opportunities to the capital market.

The IPO of ICBC is the first case of "A + H" simultaneous issuance. ICBC has solved many problems, such as consistent information disclosure at home and abroad, the convergence of domestic and foreign issuance schedules, coordination and communication of supervision between the two places, and equal disclosure of domestic and foreign information.

The simultaneous listing of ICBC on the Shanghai stock exchange and the Hong Kong stock exchange is not only a significant milestone in the development history of ICBC but also another significant achievement in the reform and development of China's banking sector and the opening up to the outside world. It is a new practice with pioneering significance in the development of China's capital market.

4 Comparison of Selected IPOs

Alibaba Group is a Chinese company that has chosen to list in the US because it does not meet the listing criteria set by the China Securities Regulatory Commission. In this section, we explain in detail the reasons for the differences in listing standards between China and the US, as well as detailed data and developments in both IPOs.

4.1 Comparison of the two systems

The international mainstream stock issue system has two kinds of the approval-based IPO system and registration-based IPO system; at present, China adopts the approval-based IPO system, the United States adopts the registration-based IPO system.

4.1.1 Definition of two systems

The first system is *the approval-based IPO system*.

In the process of stock issuance under this mode, the securities regulatory authority requires the listed companies to disclose the real situation of the company. The securities regulatory authority shall examine the accuracy and authenticity of the application documents, as well as the issuer's business nature, financial status, business capacity, development prospects, and make a judgment on whether the originator meets the issuance conditions and whether the application is approved. From the concept of the approval-based IPO system, it is a kind of stock issuance system with "substantive review" as the core. In this process, the securities regulatory authority will assess and judge whether each issuer is qualified to issue shares.

The second system is *the registration-based IPO system*.

In the process of issuing shares under this mode, the company must also disclose the real situation of the company. When issuing shares, the company must completely and accurately report all kinds of information that should be disclosed to the securities regulatory authority and apply for registration according to law. The securities regulatory authority shall examine the accuracy and authenticity of the application documents, there is no need to conduct

substantive review on the nature of the issuer's business, financial situation, business ability, development prospect, and other conditions, only examine its legality and compliance.⁵

The difference between the two systems

The main difference between the two systems lies in whether the securities regulatory authorities make a company value judgment on the companies applying for listing. The registration-based IPO system emphasizes to examine whether the company has fulfilled the obligation of disclosure according to the regulations, while the approval-based IPO system is more specific to the company, especially the company's profitability.

In order to verify that the approval-based IPO system is more rigid and pay attention to the company's profitability, we use the data of small and medium-sized board of Shenzhen Stock Exchange and Nasdaq's listed financial indicators for comparison.

Shenzhen Stock Exchange: the net profits of the three accounting years are all positive and exceed 30 million CNY accumulatively. The net cash flow generated by the business activities of the three accounting years exceeds 50 million CNY accumulatively, or the business income of the three accounting years exceeds 300 million CNY accumulatively.⁶

NASDAQ: the standard one, Income from continuing operations before income taxes (in the latest fiscal year or two of last three fiscal years) to reach \$ 1 million, Stockholders' Equity to reach \$ 15 million, and Market Value of Unrestricted Publicly Held Shares to reach \$ 8 million. Standard two, Stockholders' Equity reaches \$ 30 million, and Market Value of Unrestricted Publicly Held Shares reaches \$ 18 million. Standard three, Market Value of Listed Securities reaches \$ 75 million, and Market Value of Unrestricted Publicly Held Shares reaches \$ 20 million. Standard Four, Total Assets and Total Revenue (in the latest fiscal year or two of last three fiscal years) will reach \$ 75 million and \$ 75 million, and Market Value of Unrestricted Publicly Held Shares will reach \$ 20 million.⁷

⁵ Gao Jingzhong, Zha Yufeng, Tang Keqin. Comparison of IPO systems between China and the United States and Its Enlightenment on China's registration-based IPO system reform [J]. China certified public accountant, 2018 (08): 118-122. ISSN: 1009-6345

⁶ Source: Shenzhen Stock Exchange, <http://www.szse.cn/ipo/guide/requirements/index.html>

⁷ Source: Listingcenter of NASDAQ, Initial Listing Guide January 2020:7

The result of the comparison between the two systems

The most significant difference between the registration-based IPO system and the approval-based IPO system is whether there is a strict profitability requirement. Profitability is the judgment of the potential and value of a company. It can reflect the investment value of a company.

Companies must achieve profitability indicators in order to be listed in the approval-based IPO system. Companies do not have to meet standards to be listed in a market with a registration-based IPO system. It is only necessary to show the legitimacy of the company's information to the examination department.

The difference between the registration-based IPO system and the approval-based IPO system is that the evaluation of investment value is different. In the approval-based IPO system, the government agencies judge the value of the company, and the profitability of the company must meet the standards set by the government. However, in the registration-based IPO system, there is no government agency to judge the value of the company because the whole market system is a value judgment environment. When an investor has a higher professional ability, he will not buy stocks with no value. Weak companies are naturally challenging to survive in the market, and the quality of the stocks left is guaranteed.

It is relatively easy for companies to be listed under the registration-based IPO system, but it is not very easy for companies under the approval-based IPO system to be listed. A country needs a stable market foundation to implement the registration-based IPO system. The approval-based IPO system is a transitional means established by a country when the market foundation is not mature. So people generally think that the registration-based IPO system is one of the signs of the maturity of the stock market.

4.1.2 Comparison of the characteristics of the two systems

Both systems have their own characteristics.

The characteristics of the approval-based IPO system

The first characteristic is *government intervention in corporate IPO issuance*.

The securities issuing examination institution authorizes the issuing authority of the company. The system itself has some defects, so the government must carry out macro-control through state intervention.

The approval-based IPO system does not supervise the issuance of shares in the securities market. It artificially supervises and interferes with the issuance of shares through the administrative power of the state regulatory agencies. The state ensures the legitimacy and fairness of the qualification of the applicant for securities issuance by formulating relevant laws and regulations. During the period of company audit, if the securities regulatory authority finds that the qualifications and conditions of the issuer do not conform to the laws and regulations, it will prohibit the public issuance of shares.

The second is *mandatory information disclosure*.

China's "Securities Law" stipulates that before preparing for issuance and listing, the issuing applicant shall provide the securities regulatory authority with the application documents required for issuance and listing following laws and regulations.

The issuing applicant must ensure the authenticity and accuracy of all application documents. After obtaining the corresponding issuing qualification, the issuing applicant must publish the issuing and listing documents following laws and regulations and publish the relevant information of the issuing securities to the public. Information disclosure reduces the risk of the securities market and the loss of investors.

Article 26 of the securities law of the People's Republic of China stipulates the legal responsibilities of the sponsor. The sponsor shall bear the corresponding guarantee responsibility for the information disclosed by the securities issuance applicant.

After obtaining the authorization from the securities regulatory authority, the competent authority may revoke the authorization of the issuer if the issuer violates laws and regulations or makes false disclosure. The issuing applicant and the sponsor shall accept the corresponding punishment following laws and regulations.⁸

The third is *substantive management principles*.

⁸ Source: Yang Zhihua, *securities legal system research*, China University of political science and Law Press, 1995 edition, 70.

The issuance of securities requires the issuer to disclose the real situation of various documents, and must also pass much examination of substantive conditions for the issuance of securities. They specifically include the business nature of the company, the qualification and ability of management personnel, the rationality of the company's capital structure, the authenticity of public information, and other substantive audits.⁹

The company shall meet the double standards of formal examination and substantive examination, and be authorized and approved by the securities issuance examination institution to obtain the listing qualification of securities issuance.

The approval-based IPO system is lack of market autonomy. It restrains the issuing behavior of the applicant through the construction of the system, to achieve the balance of public interest and social interest.

The fourth is *the approval-based IPO system protects nonprofessional investors*.

Nonprofessional investors lack investment experience in the securities market, so it is not very easy to adequately protect their interests. The securities regulatory authority shall strictly examine the application for securities issuance to reduce the number of inferior securities on the market. The approval-based IPO system does not think that investors can make a reasonable choice on their own and does not attach much importance to the freedom of investors.

The characteristics of the registration-based IPO system

The first characteristic is *the registration-based IPO system requires high-quality information disclosure*.

The securities act of 1933 requires companies to disclose information to protect investors continuously. Under the strict requirements of the securities and exchange commission, issuers must fully disclose all material information and risks, and everything related to investment decisions must be clear and easy for investors to understand. The American securities market ensures the quality of information disclosure of listed companies through layers of supervision.

The company shall bear legal responsibility for the authenticity of its information. When the regulatory authorities find that the company's information disclosure is false, all the

⁹ Source: Wan guohua, *Introduction to securities law*, tianjin people's publishing house, 2002, 72

company executives and securities intermediaries who sign on the documents shall be subject to criminal and economic penalties.

Intermediary agencies also need to perform the obligation of monitoring the authenticity of the company's information. The lawyer is responsible for the standard writing of the application and communication with the SEC. The lawyer signs the prospectus and is responsible for the legal opinions in the prospectus. The certified public accountant shall review the financial information, sign the financial statements, and be responsible for the authenticity of the statements. Securities companies decide the issuing price of stocks through Roadshow and inquiry. Intermediary institutions should abide by professional ethics, control the possible risks, and curb securities fraud.

At the same time that the intermediary institutions supervise the issuers, the securities regulatory authorities will supervise the intermediary institutions and the issuers. The regulatory authorities will check the authenticity of the information disclosure of the listed companies and the performance of the intermediary institutions, and punish the intermediary institutions that do not perform their duties to ensure the regular operation of the market.

The second is *the federal government and the state government are the dual regulatory subjects*.

Companies listed in the U.S. must be subject to review by the U.S. Securities and Exchange Commission and state securities regulators. State regulation is the basis of federal regulation, and the SEC mainly reviews information disclosure.

The federal review of U.S. securities issuance is the responsibility of the U.S. Securities and Exchange Commission. The securities issuer shall apply for registration to the Securities and Exchange Commission of the United States. The SEC will issue a comment letter to the issuer with written comments on the problems in the application for registration. After receiving the comment letter, the issuer shall make written replies one by one. The SEC will declare the registration document effective after the reviewers no longer have substantive opinions on the registration application document.

There are three ways companies can register to issue securities in the state. One is notification registration. The issuer has a mature business experience. The issuing applicant submits a notice to the state regulatory agency, and the regulatory body does not make a substantive examination, but the notice is the basis for subsequent investigation or prosecution.

The second is coordination registration. The company has been registered and listed in the federal market. The issuer needs to submit the prospectus registered in the federal market and additional information required by the state to the state regulatory authority. The third is the qualification registration. The issuer submits a written application to the state regulatory authority, which will approve the issuer to issue securities in the state if it believes that the issuer has completely disclosed the information.

The third is *the registration-based IPO system has stringent punishment measures.*

The registration-based IPO system can not guarantee the accuracy of the prospectus and other registration documents. As long as investors find that the issuer has false information in the investment process, they can ask the issuer to provide compensation. If the issuer violates the obligation of information disclosure, it should bear the corresponding responsibility. The perfect legal litigation system and severe punishment measures ensure the authenticity and integrity of the information disclosure system.

4.1.3 Advantages and disadvantages of the approval-based IPO system

While the approval-based IPO system protects investors, it restricts many dynamic companies, and in general, the disadvantages outweigh the advantages.

Advantages of the approval-based IPO system

The first advantage is *the approval-based IPO system can raise the threshold of market access and stabilize the order of the securities market.*

The examination and the approval-based IPO system is a dual examination of the securities to be issued in substance and form, which guarantees the investment value of the securities. The approval-based IPO system is conducive to the stability of the order of the securities market, can effectively improve the quality of stock issuance, and protect the rights and interests of investors.

The second is *the approval-based IPO system protects the interests of investors.*

In the early stage of market economy development, there are some problems such as the imperfect system and laws and regulations. The approval-based IPO system makes up for the shortcomings of emerging markets. The government regulates and controls the stock market by

administrative means, which improves the overall quality of the stock market and drives investors' enthusiasm for investment.

Disadvantages of the approval-based IPO system

The first disadvantage is *the approval-based IPO system makes the management power of securities too centralized.*

In the process of the approval-based IPO system, only a few people have the power of approval, which will inevitably cause a moral hazard, and these powers may become a tool to pursue personal interests. The officials of the securities issuance Review Committee have the right to approve the issuance of shares, and they have great freedom, resulting in corruption.

The second is *the approval-based IPO system makes IPOs inefficient.*

The IPO audit in the approval-based IPO system is conducted by the relevant departments to audit and analyze the information of the enterprise. This process is originally handed over to the market for judgment in the registration-based IPO system, which involves the market maturity and the quality of shareholders. The approval process is long, and the cycle is long, stability is not fast, audit cost is high, efficiency is low, inhibits the development of the stock market.

4.1.4 Advantages of the registration-based IPO system

The registration-based IPO system is the better system at the moment, and it has many advantages.

The first Advantage is *the registration-based IPO system is efficient.*

As long as the government audit institution does not raise any objection to the application documents, the issuer can issue securities. Therefore, the registration-based IPO system simplifies the audit procedures, shortens the time of securities issuance, and is conducive to improving work efficiency and reducing financing costs.

The second is *the registration-based IPO system reduces the threshold of listing.*

It promotes competition, and is conducive to the potential and risk enterprises to obtain funds and development opportunities through the securities market. The competent department

of the government participates in the supervision and management of the securities market as a supervisor, to avoid the improper interference of the government in the issuance of securities.

The third is *the registration-based IPO system can develop the ability of investors*.

The registration-based IPO system is conducive to cultivating rational investors and improving the overall level of the market. Investors need to make their investment judgments and choices based on public information, which helps to improve investors' investment judgment.

4.2 Comparison of two IPO data

Industrial and commercial bank of China and Alibaba are both Chinese companies, but for a variety of reasons, the two companies chose different listing venues. This section describes some comparisons of the data. Some data need to be compared with companies in the same industry, Amazon.com and eBay are Alibaba's comparison group, and Bank of China is ICBC's comparison group. The data in this section for Alibaba Group Holding Limited are from Nasdaq and Eastmoney, and the data for ICBC Limited are from Shanghai Stock Exchange and Eastmoney.

4.2.1 Basic information of securities

Alibaba is the abbreviation of Alibaba Group Holding Limited, and the stock code is BABA. N, the listed exchange is the New York stock exchange. The issue date is September 19, 2014, the initial price is 68 dollars, the number of 320,106,100 shares is issued, and the total initial capital raised is 21,767,214,800.00 dollars. The lead underwriters of the IPO were Citigroup Global Markets Inc., Credit Suisse Securities (USA) LLC, Deutsche Bank Securities Inc., J.P. Morgan Securities LLC, Morgan Stanley & Co. International PLC, Goldman Sachs (Asia) L.L.C.

The listing date of the industrial and commercial bank of China is October 27, 2006. The listed exchange is the Shanghai stock exchange, and the stock code is 601398. On the same day, the industrial and commercial bank of China is listed on the Hong Kong stock exchange. The initial price was 3.12 CNY, the number of shares issued was 14,950,000,000, and the total initial capital raised was 46,644,000,000.00 CNY. The lead underwriters of the IPO are China International Finance Co., Ltd., Guotai Junan Securities Co., Ltd., and CITIC Securities Co., Ltd.

4.2.2 Shareholder information of two securities

Table4.1 is the top ten shareholders of Alibaba group and Table4.2 is the top ten shareholders of ICBC.

Table4.1: Top 10 shareholders of Alibaba (Deadline: March 31, 2020)

Company ranking	Name of company	Number of shares
1	Blackrock INC	88,193,322 shares
2	Vanguard Group INC	65,926,851 shares
3	Price T Rowe Associates INC	64,313,239 shares
4	Baillie Gifford & CO	51,146,770 shares
5	State Street CORP	37,975,313 shares
6	JP Morgan Chase & CO	27,422,506 shares
7	UBS Asset Management Americas INC	26,708,836 shares
8	HSBC Holdings PLC	26,094,758 shares
9	Capital Research Global Investors	25,753,706 shares
10	Temasek Holdings (Private) LTD	24,122,675 shares

Source: Nasdaq, author

Table4.2: Top 10 shareholders of ICBC (Deadline: March 31, 2020)

Company ranking	Name of company	Number of shares
1	Central Huijin Investment CO LTD	123,717,852,951 shares
2	The Ministry Of Finance PRC	110,984,806,678 shares
3	Hong Kong Central Clearing CO LTD	87,334,481,614 shares
4	The National Council For Social Security Fund	12,331,645,186 shares
5	Ping An Life Insurance CO of China	3,687,330,676 shares
6	China Securities Finance CORP	2,416,131,564 shares
7	Buttonwood Investment Platform CO LTD	1,420,781,042 shares
8	Central Huijin Asset Management CO LTD	1,013,921,700 share
9	China Life Insurance CO	472,599,788 shares
10	Taiping Life Insurance CO LTD	387,807,151 shares

Source: Eastmoney, author

4.2.3 Equity structure

On December 6, 2019, Alibaba updated its share capital data with 21,461,784,264 common shares outstanding, of which 20,886,784,264 are outstanding in the United States, and 575,000,000 are outstanding in Hong Kong.

On February 12, 2015, there was a change in the share capital of ICBC Limited, with a total share capital of 356,406,257,089 shares, of which 269,612,212,539 shares were outstanding in mainland China, and 86,794,044,550 shares were outstanding in Hong Kong.

4.2.4 Valuation analysis

Stock valuation is a relatively complex process, influenced by many factors, and there is no global uniform standard. It can help investors identify stocks that are severely undervalued and help investors analyze the risks of stocks of interest.

Price-to-earnings ratio

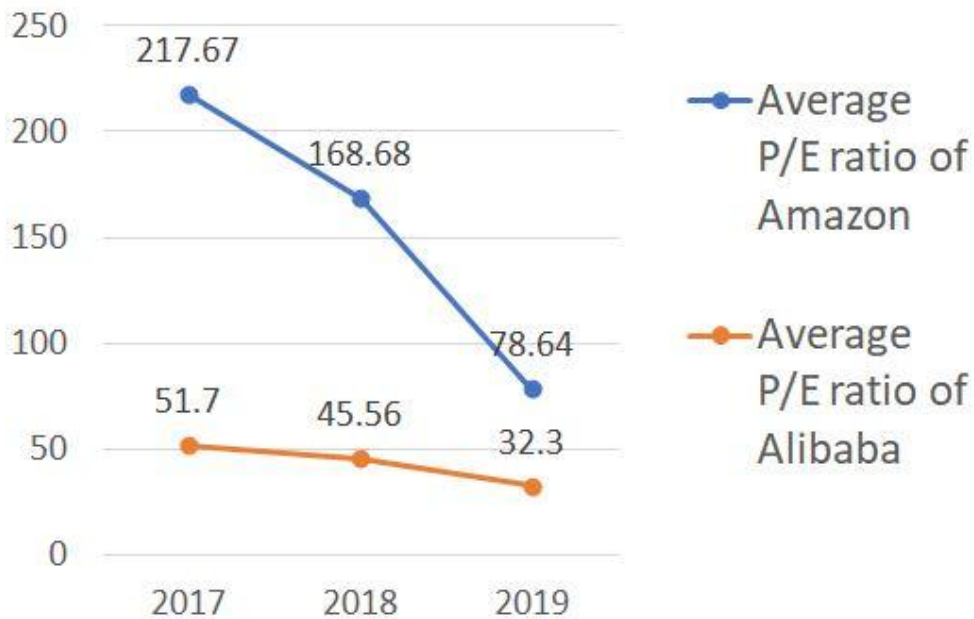
One of the most common indicators used to assess the reasonableness of a share price level is the price-earnings ratio, which is calculated by dividing the share price by annual earnings per share. The price-to-earnings ratio is one of the most basic and relevant metrics for estimating the value of a common stock. Too small a value means the share price is low and the risk is low and worth buying; too large a value means the share price is high and the risk is high, and investors should be careful when buying. However, high P/E stocks tend to be favorites, and low P/E stocks may be cold stocks.

If a company's earnings ratio is going to multiply in the future, investors will be very bullish on the stock, investors will drive up the stock price, and the P/E ratio of the stock will be much higher than that of similar stocks. When a company has a very high price-to-earnings ratio, investors generally believe that the company's future earnings per share will multiply that the price-to-earnings ratio can reduce to a reasonable level in a few years. However, if earnings growth is not right, the company cannot support the high price-to-earnings ratio, and the share price tends to fall back sharply.

The P/E ratio is a very rough indicator, and it makes more sense to compare the P/E ratios of the same stock at different stages. In addition to the comparison of Alibaba and ICBC, I added a comparison of similar stocks, and I chose Amazon.com Inc. and Bank of China Ltd.

Alibaba's P/E ratio averaged 51.70 in 2017, 45.56 in 2018, and 32.30 in 2019. Amazon.com has a P/E ratio of 217.67 in 2017, 168.68 in 2018 and 78.64 in 2019.

Graph4.1: Comparison of the average P/E ratio of Amazon and Alibaba

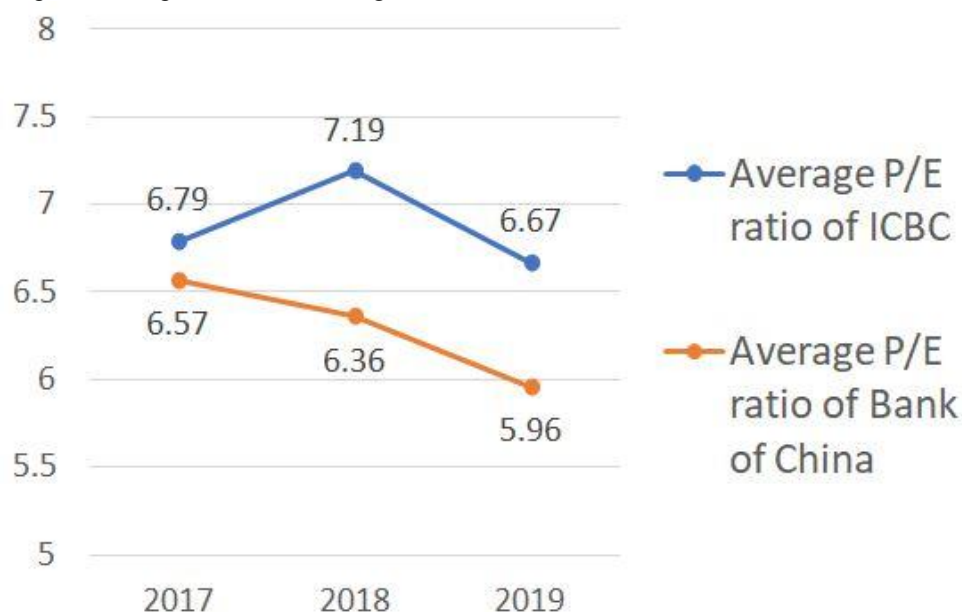


Source: Nasdaq, Eastmoney, author

In comparing the data of Alibaba and Amazon, we can see that during the three years, the data of both companies have declined, and the difference between the two values is enormous, with Amazon's P/E ratio averaging much larger than Alibaba.

The average P/E ratio of Industrial and Commercial Bank of China Limited was 6.79 in 2017, 7.19 in 2018, and 6.67 in 2019. The average P/E ratio of Bank of China Limited was 6.57 in 2017, 6.36 in 2018, and 5.96 in 2019.

Graph4.2: Comparison of the average P/E ratio of ICBC and Bank of China



Source: Shanghai Stock Exchange, Eastmoney, author

From the comparison of the data of Industrial and Commercial Bank of China Ltd. and Bank of China Ltd., we can see that the data of Bank of China Ltd. has been declining during the three years, but the data of Industrial and Commercial Bank of China Ltd. increased in 2018. The difference between the two values is small, and neither has changed much.

I think both Alibaba and Amazon are high P/E companies, and high P/Es reflect the trust investors have in these companies, and investors think these companies have a good outlook and are likely to deliver growing returns to the company's shareholders. Alibaba and Amazon are both technology companies and Internet companies, and they are companies that are in a rapid growth phase, so they have higher P/Es.

Some investors believe a high P/E ratio means investors are bullish about the company's long-term growth prospects. As a result, they are willing to pay a relatively high share price to profit from the company's future growth. Another segment of investors sees high P/E ratios as a bearish signal that the company's stock is overvalued and will soon fall and return to normal price levels. From these contradictory understandings, we can draw a definite conclusion: high P/E ratios usually imply high risk, and high risk implies the possibility of high returns.

Financial markets are fickle, and the growth investors expect does not always translate into reality. When a company does not meet earnings expectations, investors will sell the stock, causing it to fall sharply, a characteristic of high price-to-earnings stocks, which are characterized by dramatic price fluctuations.

I think ICBC Co. and Bank of China Co. are both low P/E companies because they have developed and have little growth potential.

Some investors believe that low P/E ratios are a sign that they are buying a stock because the economy is in the doldrums or other investors are not bullish on the company, and other investors may undervalue the stock, so a low P/E is a sign that they are buying a stock. Another segment of investors believe that the low P/E ratio is the beginning of a continued decline in the stock's price, and since the low P/E ratio could be a sign of a company's bankruptcy, these investors believe that it is time to sell the stock.

We cannot just focus on how high the P/E ratio is to judge whether to buy or sell a stock, because the P/E ratio is just a rough figure, and a high P/E ratio could be due to low earnings per share as a denominator or a high share price as a numerator. Every investor has their understanding of the P/E ratio, and we should go and pay more attention to the data, check out what information services companies say about the safety and financial stability of the company, read the financial statements of the company.

Price-to-book Ratio

Price-to-Book Ratio is the ratio of the price per share to the net assets per share. Net assets are a common interest of all shareholders, and the operating conditions of a joint-stock company determine the number of net assets. The better the operating performance of the joint-stock company, the faster its assets will increase in value, and therefore the higher the shareholders' interest.

The P/B ratio is a good indicator of which company can get higher returns with less investment. Net assets per share are the value of the stock itself, calculated by cost, and the market price per share is the current price of those assets, which is the result of trading in the securities market. The quality of a firm's assets is better and has the potential for development when the market value is higher than the value, and conversely, the quality of assets is poor and has no prospects for development.

The market prices of quality stocks with growth potential all exceed net assets per share by a significant amount, with higher P/B ratios implying greater risk and expected future profitability. A stock with a market price below net assets per share is like a commodity that sells for less than its cost, similar to a promotional item, where a lower price-to-book ratio means less risk and expected future profitability is weaker. However, it is not necessary to

pursue stocks with a high P/B ratio, because a low P/B ratio means that the investment risk is small, in case the listed company collapses, the investor can recover more costs when the liquidation.

In 2014 Alibaba's average price-to-book ratio was 20.63. In 2015 this figure dropped to 8.21. In 2016 this figure was 6.15. In 2017 this figure was 8.53. In 2018 this figure was 7.97, and in 2019 this figure was 6.18. We can observe that in the first year of listing Alibaba's average price-to-book ratio was 20.63, from the beginning of 2015 to the end of 2019, Alibaba's average price-to-book ratio was all under 10 and fluctuated between 6 and 9.

In 2014 Amazon's average price-to-book ratio was 15.15. In 2015 this figure rose to 19.50. In 2016 this figure was 21.69. In 2017 this figure was 21.36. In 2018 this figure was 24.93, and in 2019, this figure was 18.11. We can observe that Amazon's average P/B ratio rose from 2014 to 2018, with a big pullback in 2019.

Graph4.3: Comparison of the average P/B ratio of Amazon and Alibaba



Source: Nasdaq, Eastmoney, author

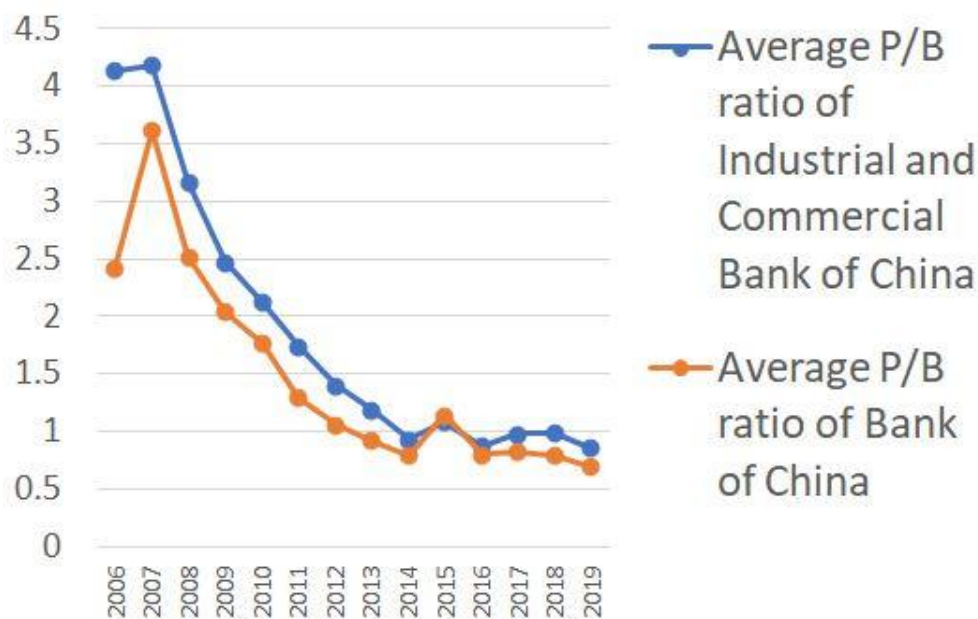
In the six years from 2014 to 2019, Amazon's average price-to-book ratio was above 15. Alibaba's average price-to-book ratio was below 10, except for the first year. Both companies are e-commerce platforms, and we can compare the data of both companies to conclude that investors generally believe that Amazon's future profitability is stronger than Alibaba. Alibaba is a famous company in China, while Amazon is a very popular company worldwide. I don't think that Alibaba's products have affected the world as much as Amazon's, which is more

connected to the people of the world. When Alibaba can influence more people in the world, I think investors will be more bullish on Alibaba.

The average price-to-book ratio of ICBC was 4.13 in 2006, 4.18 in 2007, 3.17 in 2008, 2.47 in 2009, 2.12 in 2010, 1.74 in 2011, 1.40 in 2012, 1.19 in 2013, 0.93 in 2014, 1.09 in 2015, 0.87 in 2016, 0.98 in 2017, 0.99 in 2018 and 0.86 in 2019. We can observe that the P/B ratio of ICBC has been less than 1 between 2016 and 2019. Investors are generally not bullish on the future profitability of this company.

In 2006, Bank of China's average price-to-book ratio was 2.42, in 2007 it rose to 3.62, in 2008 it fell to 2.52, in 2009 it fell to 2.04, in 2010 it fell to 1.77, in 2011 it fell to 1.30, in 2012 it fell to 1.06, in 2013 it fell to 0.92, in 2014 it fell to 0.79, in 2015 it rebounded slightly to 1.14, in 2016 it was 0.80, in 2017 it was 0.83, in 2018 it was 0.79, in 2019 it was 0.69. We can observe that the Bank of China's average P/B ratio has been less than 1 between 2016 and 2019, investors are generally not bullish on the future profitability of this company.

Graph4.4: Comparison of the average P/B ratio of ICBC and Bank of China



Source: Shanghai Stock Exchange, Eastmoney, author

When comparing the data of ICBC and Bank of China, we find that the trend of change in the average price-to-book ratio of both companies is basically the same, and in recent years, the average price-to-book ratio of both companies is less than 1. Banking is a traditional industry, and both companies are also state-owned enterprises in China. Investors are generally not bullish on the traditional sector, and there is a perception that investing in a bank is a and conservative, as the bank offers financial products that are not prone to risk, so investors

believe the bank is relatively safe. There are a lot of conservative investors who like to buy this type of stock because they do not want to take the risk. That is why banks have low price-to-book ratios, and investors agree that this type of stock is less profitable.

Banks are traditional in the financial industry, and both ICBC and Bank of China are large state-owned enterprises that raise investors' money and then invest in solid, safer products. On the other hand, private financial firms have set their sights on high-risk, high-profit financial products, and most of these companies will have higher P/B ratios than state-owned enterprises like ICBC and Bank of China. For example, Western Securities Corporation, whose ticker symbol is 002673, this company had an average P/B ratio of 1.90 in 2019, and it had an average P/B ratio of greater than 3 until 2018.

We compare the above average price-to-book ratio of Alibaba and ICBC and find that Alibaba has a much higher value than ICBC. I think from an investment point of view, if an investor wants a high return then he has to take a high risk. A conservative investor would choose ICBC's stock because it is much less risky than Alibaba for significant price volatility. And an investor willing to take the risk is likely to choose a risky, profitable stock like Alibaba.

4.2.5 Dividends

A dividend is a bonus that the company pays to investors in proportion to their share of the stock in the company's annual profits. It is a return on investment by a public company to its shareholders.

The dividends history of Alibaba Group

We were unable to search for Alibaba's dividend history on the NASDAQ website, which could indicate that the company has never offered a dividend or that the company has not yet paid a state dividend.

Alibaba has pursued the strategy that the size of the shareholding does not equal the size of the rights to hold the company. While Jack Yun Ma's shareholding is small, and the other major shareholders have no say in Ali, the decision is in the hands of Jack Yun Ma and his team. This strategy of Alibaba greatly protects the interests of the founders, and Jack Yun Ma does not have to worry about Softbank and Yahoo taking possession of Alibaba. Softbank and Yahoo are more like financial investments in Alibaba.

Alibaba's dividend payout is not very strong, and the company is even barely paying a dividend. SoftBank and Yahoo do not care about Alibaba's share of the dividend, and they care about the rate of return on investment. If the big shareholders are bent on getting dividends, and the potential-filled Alibaba uses most of its profits for dividend distribution, then Alibaba's growth could stall or even be at risk. In fact, Alibaba went public and reinvested all the money it made, making the business more robust and higher investment.

The investment in Alibaba by large shareholders such as SoftBank and Yahoo is a long-term investment, and they need good growth prospects for the business as well as the sustainability and health of the business to keep their holdings appreciating. If the majority shareholder demands that Alibaba pay dividends, it is the shareholders' own interests that are ultimately harmed.

The dividends history of ICBC

From the second year of listing, ICBC will pay dividends to shareholders in the middle of each year. In 2007, the dividend per share was 0.016 CNY; from 2008 to 2011, the dividend per share was 0.133 CNY to 0.184 CNY; from 2012 to 2019, the dividend per share was higher than 0.2 CNY, and between 0.203 CNY and 0.2617 CNY. In 2014, the dividend per share was 0.2617 CNY, a record high for ICBC.

Alibaba has a completely different dividend payout system than ICBC. While Alibaba barely distributes dividends, it still manages to attract a large number of investors because investors can understand that Alibaba's market reach in China is vast, its products are closely connected with the Chinese people, and most investors expect Alibaba to be full of potential.

ICBC attracts investors by paying dividends to each of its shareholders at mid-year. Investors who chose to hold ICBC's shares mostly sought price and market stability, most of them do not like to take risks so that they will enjoy real dividends more. The dividend per share for 2019 is CNY 0.2506, and the total share capital on the date of registration of equity is 269,612.2125 million shares, we can calculate that ICBC needs to pay about CNY 67,564.8204 million for this, which significantly constrains the development of ICBC.¹⁰

¹⁰ Reference: Annex 4

4.2.6 Share price

This section focuses on describing the historical price changes of the two stocks since listing and their yield of the holding period and annualized volatility.

Historical share price of Alibaba Group

Alibaba's shares were listed in the U.S. on September 19, 2014 at an opening price of \$92.7, with a high of \$99.70 and a low of \$89.95 on that day, closing at \$93.89, giving the stock a \$25.89 gain and a first-day volume of 271,879,435 shares. Alibaba's shares ended the first year of listing on December 31, 2014 at a closing price of \$103.94, giving a total volume of 2,077,399,015 shares in 2014.

Alibaba stock closed at 81.27 on December 31, 2015 with a total volume of 4,324,333,409 shares in 2015. As of March 31, 2020, Alibaba's share price reached its low on September 29, 2015, when it hit a low of \$57.20.

Alibaba stock closed at 81.27 on December 31, 2016 with a total volume of 4,324,333,409 shares in 2015.

Alibaba stock closed at \$172.43 on December 29, 2017 with a total volume of 3,792,427,572 shares in 2017.

Alibaba stock closed at \$137.07 on December 31, 2018 with a total volume of 5,123,656,998 shares in 2018.

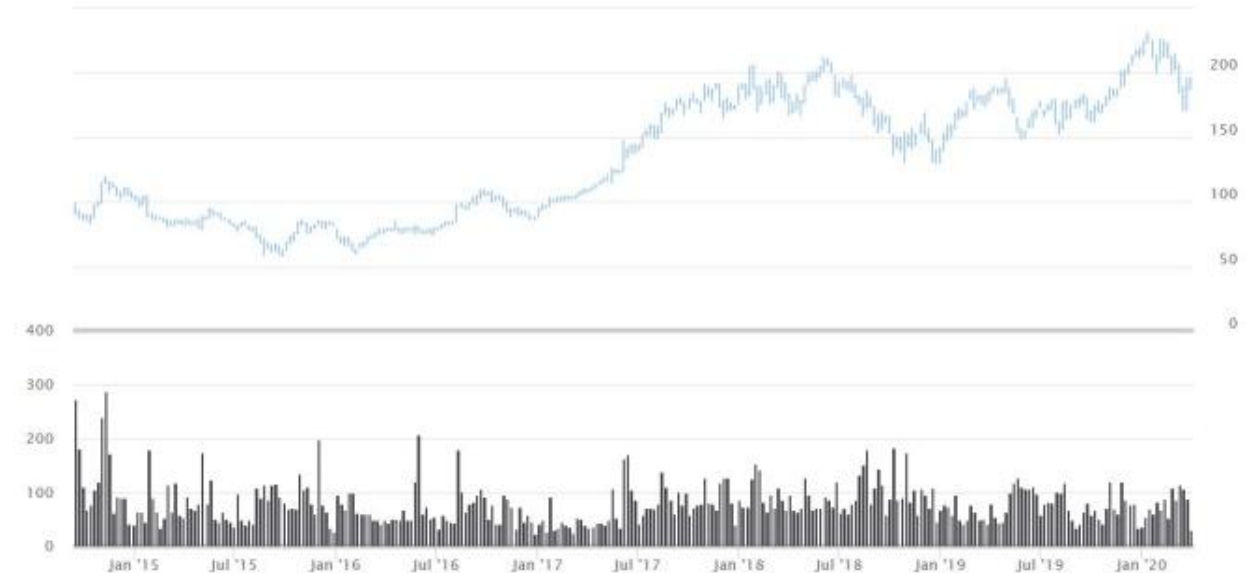
Alibaba stock closed at \$212.10 on December 31, 2019 with a total volume of 4,002,515,408 shares in 2019.

Alibaba's stock closed at \$194.48 on March 31, 2020, and the stock price has risen \$126.48, or 186%, from its debut price on the date of listing. As of March 31, 2020, Alibaba's share price reached an all-time high on January 13, 2020, with a high of \$231.14 on that day.

We can see from Alibaba's historical stock price chart that Alibaba's share price has fluctuated up and down from the date of listing until January 2017, and most of the time, the share price has been below the price on the date of listing. From January 2017 to March 2020, the share price was higher than the price on the date of listing, and the general trend of the price was continuous. Alibaba's share price showed an upward trend from January 2017 to

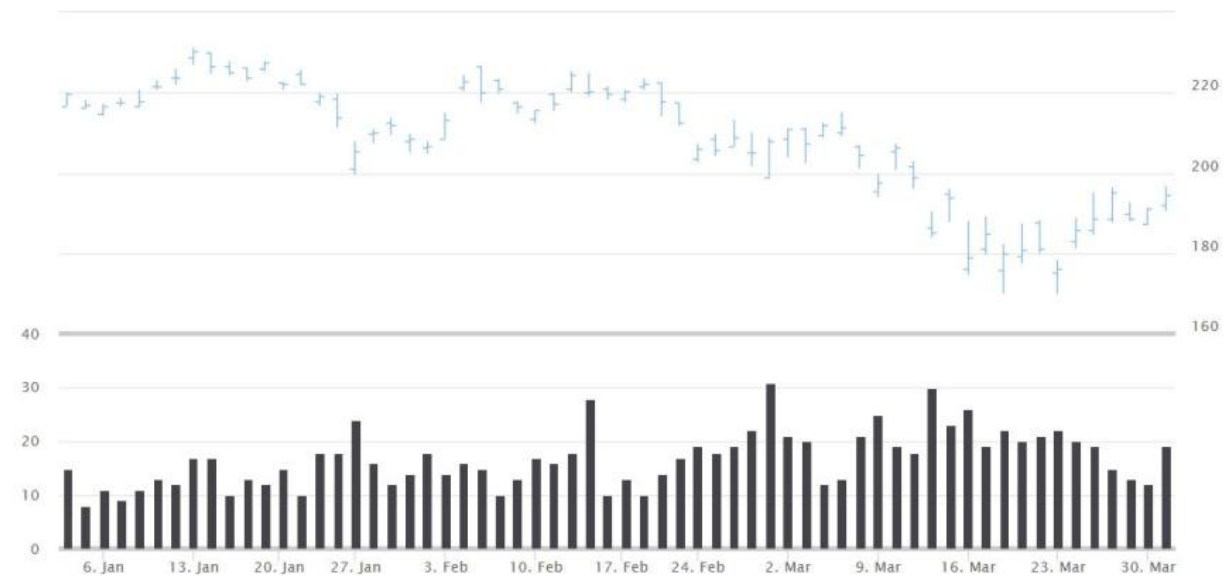
January 2018, followed by a sharp decline within December 2018, followed by a volatile but general upward trend. Alibaba's share price reached an all-time high on January 13, 2020, followed by a decline in the share price.

Graph4.5: Alibaba Historical Share Price



Source: Nasdaq BABA Advanced Charting, <https://www.nasdaq.com/market-activity/stocks/baba/advanced-charting>

Graph4.6: Share price of Alibaba in January to April 2020



Source: Nasdaq BABA Advanced Charting, <https://www.nasdaq.com/market-activity/stocks/baba/advanced-charting>

Historical share price of ICBC

On October 27, 2006, ICBC shares were listed in China at an opening price of 3.40 CNY, with a high of 3.44 CNY, a low of 3.26 CNY, and a closing price of 3.28 CNY, with a first-day

volume of 2,582.5396 million shares. ICBC's shares ended their first year on the market with a closing price of 6.20 CNY on December 29, 2006, with a total volume of 17,479.2907 million shares in 2006.

If we look at the history of ICBC's share price, we can see that as of March 31, 2020, the historical high of ICBC's share price occurred on November 1, 2007, with a historical high of CNY 9.00. The historical low of ICBC's share price occurred on September 18, 2008, with a historical low of CNY 3.13

ICBC shares closed at CNY 4.58 on December 31, 2015, with a total volume of 127,440.1819 million shares in 2015.

ICBC shares closed at CNY 4.41 on December 30, 2016, with a total volume of 22,759.2168 million shares in 2016.

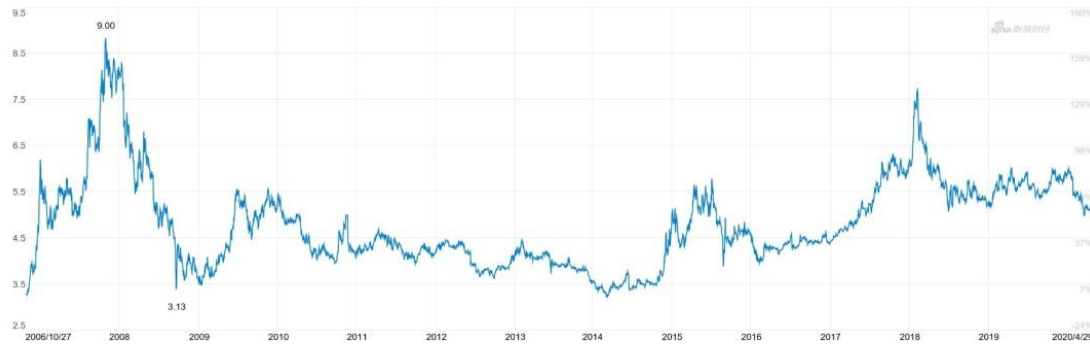
ICBC shares closed at CNY 6.20 on December 29, 2017, with a total volume of 38,512.8107 million shares in 2017.

ICBC shares closed at CNY 5.29 on December 28, 2018, with a total volume of 52,500.1267 million shares in 2018.

ICBC shares closed at CNY 5.88 on December 31, 2019, with a total volume of 44,592.9028 million shares in 2019.

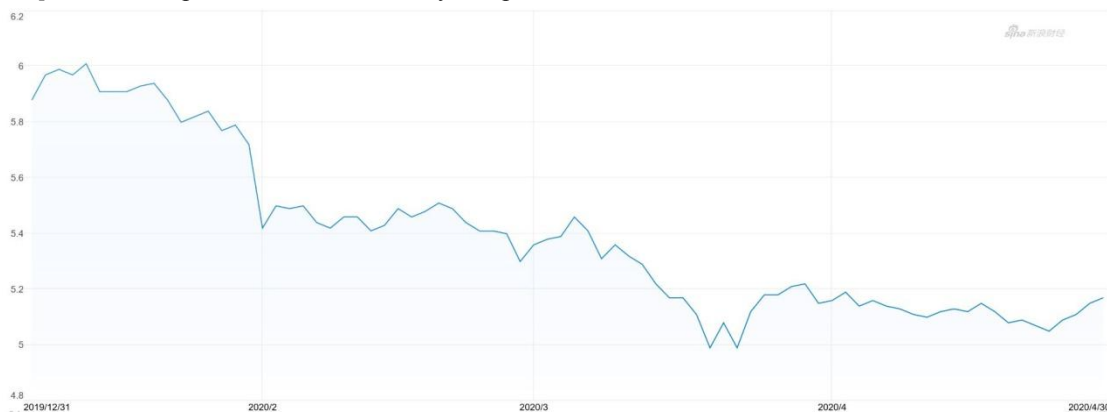
ICBC shares closed at 5.15 CNY on March 31, 2020, and the stock price increased by 2.03 CNY, or 65.06%, compared to the debut price on the date of listing.

Graph4.7: ICBC historical stock price



Source: Sina, <https://finance.sina.com.cn/realstock/company/sh601398/nc.shtml>

Graph4.8: Share price of ICBC in January to April 2020



Source: Sina, <https://finance.sina.com.cn/realstock/company/sh601398/nc.shtml>

We can see from ICBC historical stock price chart that from February 2016 to February 2018, stock prices have shown a continuous upward trend. ICBC's share price experienced a sharp decline from February 2018 to the end of 2018, followed by a volatile but generally upward trend in the share price. ICBC's share price reached a recent one-year high of CNY 6.05 on January 6, 2020, after which the share price began to fall.¹¹

The international relationship between the United States and China profoundly affects the share prices of Chinese companies, and although these are two different industries and different stocks on the market, they both have one thing in common: Chinese companies. The trade friction between the U.S. and China in early 2018 has led to a general disenchantment with the Chinese stock market among foreign investors, while Alibaba as a U.S.-listed company is naturally disenchanted by investors who fear that the trade friction between the U.S. and China will continue.

¹¹ Reference: Annex 1

Yield of Alibaba Group and ICBC

By observing the annual yield of Alibaba group¹², we can find that its range of change is greater than that of ICBC. ICBC's annual yield is sometimes between negative 5% and positive 5%¹³, while Alibaba group is basically outside this range.

The average annual yield of Alibaba is 23.47% in the five years from 2015 to 2019. The average annual yield of ICBC is 8.64% in the 13 years from 2007 to 2019. The average annual yield of Alibaba is higher than that of ICBC.

Volatility of Alibaba Group and ICBC

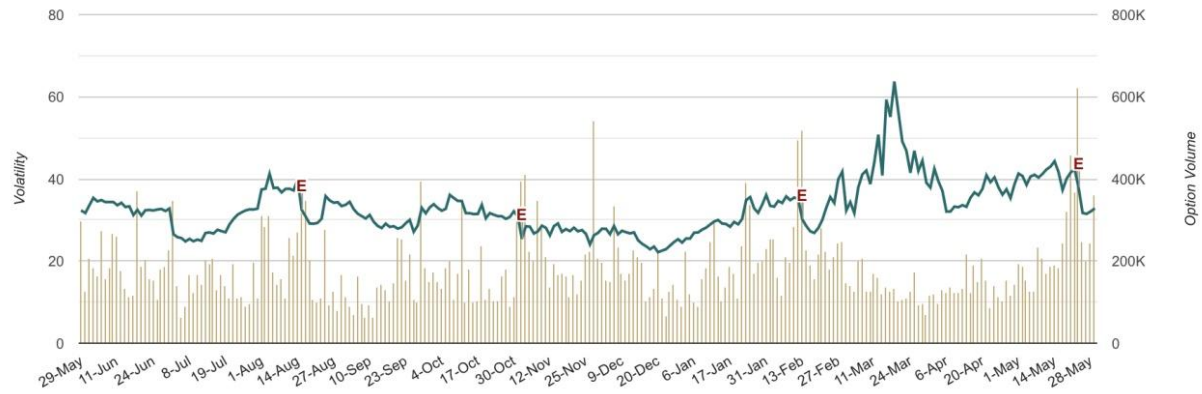
Volatility is the degree of volatility in the price of a financial asset. It is a measure of the uncertainty of asset yields. The higher the volatility, the more volatile the financial asset price, the higher the uncertainty of the asset yield; the lower the volatility, the smoother the financial asset price, the higher the certainty of the asset yield.

We can see from the data that Alibaba's volatility has remained at around 30% for almost a year, and during the global outbreak, its volatility increased, with the highest value breaking 60%. ICBC's volatility measure has continued to decline over the year, falling from 25 % to 17 %. Comparing the volatility of the two stocks, we find that the epidemic has had a smaller impact on the share prices of state-owned enterprises than private ones, with Alibaba's price volatility more intense.

¹² Reference: Annex 2

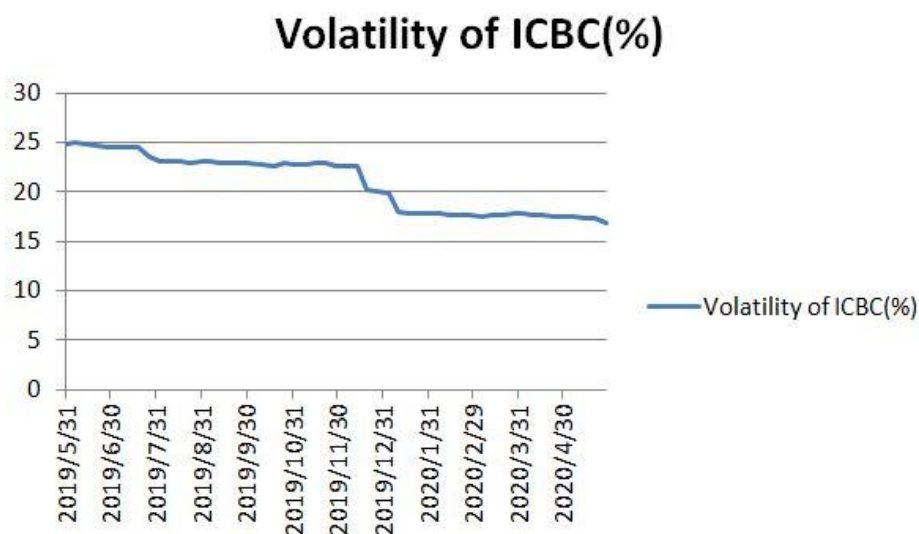
¹³ Reference: Annex 3

Graph4.9: Volatility of Alibaba in the last year



Source: Marketchameleon, <https://marketchameleon.com/Overview/BABA/IV/>

Graph4.10: Volatility of ICBC in the last year

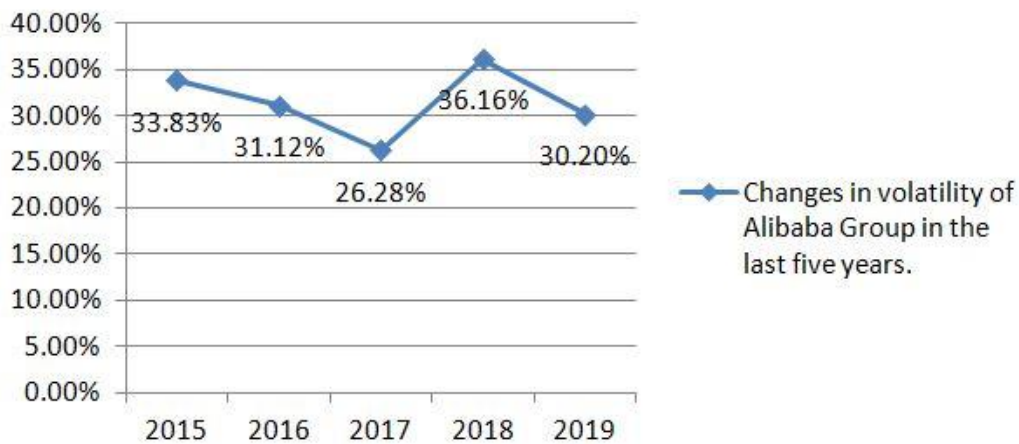


Source: Eastmoney, author

By observing the volatility changes of Alibaba and ICBC in the past five years, we can find that the overall volatility of Alibaba is higher than that of ICBC. ICBC's volatility was higher than that of Alibaba in 2015 and lower than that of Alibaba in the last four years.

Graph4.11: Annual volatility of Alibaba from 2015-2019

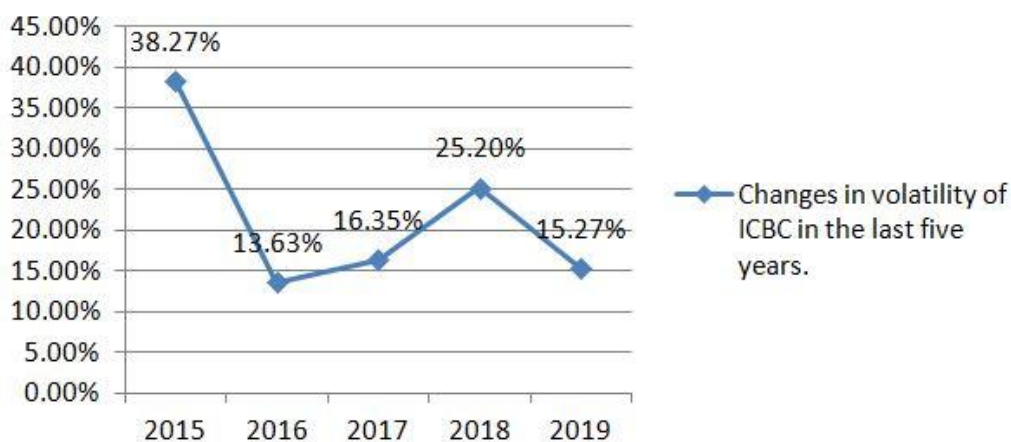
Changes in volatility of Alibaba Group in the last five years.



Source: Nasdaq BABA Advanced Charting, author

Graph4.12: Annual volatility of ICBC from 2015-2019

Changes in volatility of ICBC in the last five years.



Source: Shanghai Stock Exchange, author

4.2.7 Financial statements

The most important parts are *balance sheet*, *cash flow statement* and *income statement* of Alibaba Group and ICBC.

Balance sheet of Alibaba Group

As of March 31, 2019, Alibaba Group Holding Limited had total assets of \$ 143,608 million, of which current assets were \$ 40,218 million, and non-current assets were \$ 103,390 million. Total liabilities were \$ 69,343 million, of which \$ 30,902 million was for total current liabilities, \$16,641 million was for Long-Term debt, and \$ 73,250 million was for total equity.¹⁴

Current assets represent approximately 28.01 % of total assets, and non-current assets represent approximately 71.99 % of total assets. Current assets are underweighted to total assets, and non-current assets are overweight to total assets, and the company has a high capital utilization rate. Fixed assets and intangible assets together account for approximately 16.61 % of total assets, indicating that the company has strong profitability and excellent growth prospects.

Total liabilities represent approximately 48.29 % of total assets, suggesting that approximately 48.29 % of total assets are financed by liabilities so that the enterprise's risk is largely shared between shareholders and creditors, which also contributes to continuing to attract creditors to borrow.

The current ratio is the ratio of current assets to current liabilities. It measures the ability of an enterprise's current assets to be realized to meet its current liabilities before the maturity of its short-term liabilities, indicating how much of each dollar of current liabilities an enterprise has in current assets to cover its payments. Alibaba's total current liabilities are \$ 30,902 million, with a current ratio of approximately 130.15% and average liquidity. Short-Term Debt and Current Portion of Long-Term Debt is \$ 4,571 million, representing approximately 14.79% of total current liabilities. Since this ratio is not large, investors can accept a current ratio of approximately 130.15%.

Alibaba's cash and cash equivalents are \$ 29,537,000,000, or about 95.58 % of current liabilities, with strong short-term debt serviceability.

¹⁴ Reference: Annex 5

Cash flow of Alibaba Group

Alibaba generated net cash flows from operating activities of \$ 22,466 million, net cash flows from investing activities of negative \$ 22,478 million, and net cash flows from financing activities of negative \$ 1,100 million for the period April 1, 2018, to March 31, 2019. The effect of exchange rate changes on cash was \$ 483 million, and Net Cash Flow was negative \$ 630 million.

Alibaba generated net cash flows from operating activities of \$ 19,995 million, net cash flows from investing activities of negative \$13,313 million, and net cash flows from financing activities of \$ 3,236 million for the period from April 1, 2017, to March 31, 2018. The effect of exchange rate changes on cash was negative \$ 964 million, and net cash flow was \$ 8,954 million.

Alibaba generated net cash flows from operating activities of \$ 12,022 million, net cash flows from investing activities of negative \$ 11,547 million, and net cash flows from financing activities of \$ 4,776 million for the period from April 1, 2016, to March 31, 2017. The effect of exchange rate changes on cash is \$296 million, and net cash flow is \$ 5,547 million.

Graph4.13: Cash folw of Alibaba(USD Million)

	Operating activities	Investing activities	Fianancing activities	Effect of exchange rate changes	Net cash flow
2016-2017	12022	-11547	4776	296	5547
2017-2018	19995	-13313	3236	-964	8954
2018-2019	22466	-22478	-1100	483	-630

Source: Nasdaq, author

Alibaba's net cash flows from operating activities are all positive, and this figure has been increasing every year. Net cash flows from investing activities are negative and increasing each year, indicating that enterprises have increased their investments in fixed assets and intangible assets, that the cash required to pay for their investments has increased, that companies are in an expansion phase and that the investment is greater than the return on investment. Net cash flow from financing activities was negative between April 2018 and March 2019, indicating that cash outflows from financing activities were greater than cash inflows, which is one of the main reasons why the NET cash flow became negative during this reporting period.

Income statement of Alibaba Group

Alibaba's total revenue for the period April 1, 2018, to March 31, 2019, was \$56,076 million, its cost of revenue was \$30,792 million, and its gross profit was equal to \$25,284 million. Operating expenses were \$16,790 million, and operating profit was equal to gross profit less operating expenses and operating profit was \$8,494 million. Additional profit is \$6,596 million, so earnings before interest and tax equal \$15,090 million. Interest expense and income taxes are \$3,235 million, and earnings after interest and tax equal \$11,855 million. Minority interest and equity earnings unconsolidated subsidiary is \$1,223 million. Net profit equals \$13,078 million.

Alibaba's total revenue for the period April 1, 2017, to March 31, 2018, was \$39,777 million, its cost of revenue was \$17,014 million, and its gross profit was equal to \$22,764 million. Operating expenses were \$11,747 million, and operating profit was \$11,017 million. Additional profit is \$5,508 million, so earnings before interest and tax equal \$16,525 million. Interest expense and income taxes are \$3,460 million, and earnings after interest and tax equal \$13,065 million. Minority interest and equity earnings unconsolidated subsidiary is negative \$2,879 million. Net profit equals \$10,186 million.

Alibaba's total revenue for the period April 1, 2016, to March 31, 2017, was \$22,965 million, its cost of revenue was \$8,631 million, and its gross profit was equal to \$14,334 million. Operating expenses were \$7,361 million, and operating profit was \$6,973 million. Additional profit is \$2,125 million, so earnings before interest and tax equal \$9,098 million. Interest expense and income taxes are \$2,387 million, and earnings after interest and tax equal \$6,711 million. Minority interest and equity earnings unconsolidated subsidiary is negative \$374 million. Net profit equals \$6,337 million.

Graph4.14: Income statement of Alibaba(USD Million)

	Total revenue	Cost of revenue	Operating expenses	Additional profit	Interest expense and income taxes	Minority interest and equity earnings	Net profit
2016-2017	22965	8631	7361	2125	2387	374	6337
2017-2018	39777	17014	11747	5508	3460	2879	10186
2018-2019	56076	30792	16790	6596	3235	1223	13078

Source: Nasdaq, author

Gross profit and operating expenses increased year on year during the three reporting periods of Alibaba's income statement. Operating profit was at its maximum in 2017 to 2018

and \$2,523 million smaller from 2018 to 2019. Minority interest and equity earnings unconsolidated subsidiary became positive in 2018 to 2019, which is one of the main reasons why Alibaba's net profit became larger.

Balance sheet of ICBC

As of 31 March 2020, ICBC had total assets of CNY 32,094,478 million, of which current assets amounted to CNY 14,382,978 million and non-current assets to CNY 17,711,500 million. Total liabilities were CNY 29,314,184 million, of which total current liabilities were CNY 28,116,869 million, Long-Term debt was CNY 1,197,315 million, and total equity was CNY 2,780,294 million.

Current assets account for about 44.81% of the total assets, and non-current assets account for about 55.19% of the total assets. The proportion of current assets and non-current assets in the total assets is close to each other, and the capital utilization rate of this company is not large.

Total liabilities represent approximately 91.34% of total assets, which indicates that up to 91.34% of ICBC's total assets are financed by liabilities, indicating that the bank's risk is entirely borne by creditors, less money coming from owners. Banks have higher liabilities to repay in the short term, high operational risk and funding pressures, and higher financial risk, all of which can lead to higher costs of further financing and are not conducive to attracting investors. However, Banks generally have much experience in using debt leverage to improve shareholder returns. The overall capital profit margin of ICBC is higher than the interest rate of borrowing, which is not detrimental to shareholders.

ICBC's total current liabilities are 28,116,869 million CNY, with a current ratio of approximately 51.15 %, which means that its liquidity is low, indicating that its debt-servicing capacity is weak, its liabilities are increasing year by year, and its liquidity is weak, which is bad for its operations.

ICBC's cash and cash equivalents are CNY 3,979,997 million, or about 14.16 % of current liabilities, with weak short-term solvency.

Cash flow of ICBC

ICBC's net cash flow from operating activities during 2019 was 694,521 million CNY, net cash flow from investing activities was negative 875,967 million CNY, and net cash flow from

financing activities was 112,874 million CNY. The effect of exchange rate changes on cash was 9,462 million CNY, and net cash flow was negative 59,110 million CNY.

ICBC's net cash flow from operating activities during 2018 was CNY 724,133 million, net cash flow from investing activities was negative CNY 731,745 million, and net cash flow from financing activities was negative CNY 35,924 million. The effect of exchange rate changes on cash was CNY 32,729 million, and net cash flow was negative CNY 10,807 million.

ICBC generated net cash flow from operating activities of CNY 770,864 million, net cash flow from investing activities was negative CNY 489,258 million, and net cash flow from financing activities of CNY 81,835 million during 2017. The effect of exchange rate changes on cash was negative of CNY 32,479 million and net cash flow of CNY 330,962 million.

Graph4.15: Cash flow of ICBC(CNY Million)

	Operating activities	Investing activities	Financing activities	Effect of exchange rate changes	Net cash flow
2017	770864	-489258	81835	-32479	330962
2018	724133	-731745	-35924	32729	-10807
2019	694521	-875967	112874	9462	-59110

Source: Eastmoney, Shanghai Stock Exchange, author

ICBC's net cash flows from operating activities were positive and decreasing from year to year. The net cash flows from investing activities were all negative and increasing year by year, indicating that in the past three years, ICBC's cash returns from the disposal of fixed assets, intangible assets and long-term equity investments were less than the amount invested in fixed assets, the outflow was higher than the inflow. In 2018, ICBC's net cash flows from financing activities were negative, indicating that while enterprises were repaying loans, paying interest, and paying dividends, the net cash flows from financing activities were negative. As a result, cash flows from financing activities were greater than cash inflows, which affected the net cash flow to negative for the period.

Income statement of ICBC

ICBC's total revenue for 2019 was 855,164 million CNY, operating expenses were 464,596 million CNY, and operating profit was equal to 390,568 million CNY. Non-operating revenue was 1,221 million CNY, giving a total profit of 391,789 million CNY, less income tax expense of 78,428 million CNY, resulting in a final net profit of 313,361 million CNY.

ICBC's total revenue for 2018 was CNY 773,789 million, operating expenses were CNY 402,602 million, and operating profit was equal to CNY 371,187 million. Non-operating revenue was CNY 1,226 million, resulting in a total profit of CNY 372,413 million, less income tax expense of CNY 73,690 million, resulting in a final net profit of CNY 298,723 million.

ICBC's total revenue for 2017 was CNY 726,502 million, operating expenses were CNY 364,660 million, and operating profit was equal to CNY 361,842 million. Non-operating revenue was CNY 2,799 million, resulting in a total profit of CNY 364,641 million, less income tax expense of CNY 77,190 million, resulting in a final net profit of CNY 287,451 million.

Graph4.16: Income statement of ICBC(CNY million)

	Total revenue	Operating expenses	Non-operating revenue	Income tax expense	Final net profit
2017	726502	364660	2799	77190	287451
2018	773789	402602	1226	73690	298732
2019	855164	464596	1221	78428	313361

Source: Eastmoney, Shanghai Stock Exchange, author

In the three reporting periods of ICBC's income statement, total revenue increased significantly, operating expenses also gradually increased, and net profit has been steadily rising. Since 2017, against the background of China's financial deleveraging and tighter regulation, industry competition has intensified, and ICBC, as a large bank, relying on the advantages of sound operation and strong deposit absorption capacity, actively build the "E-ICBC" Internet financial system, further integrating the advantages of offline outlets and online expansion. In recent years, ICBC has led the industry in many retail businesses, such as wealth management, retail lending, and credit card lending, and has been able to rapidly grow its net profit through substantial operations in all areas.

4.2.8 Financial data

This section describes two financial data, Earnings per share and Rate of return on net assets, by which we can identify where the two companies stand in their respective industries and the size of returns to investors.

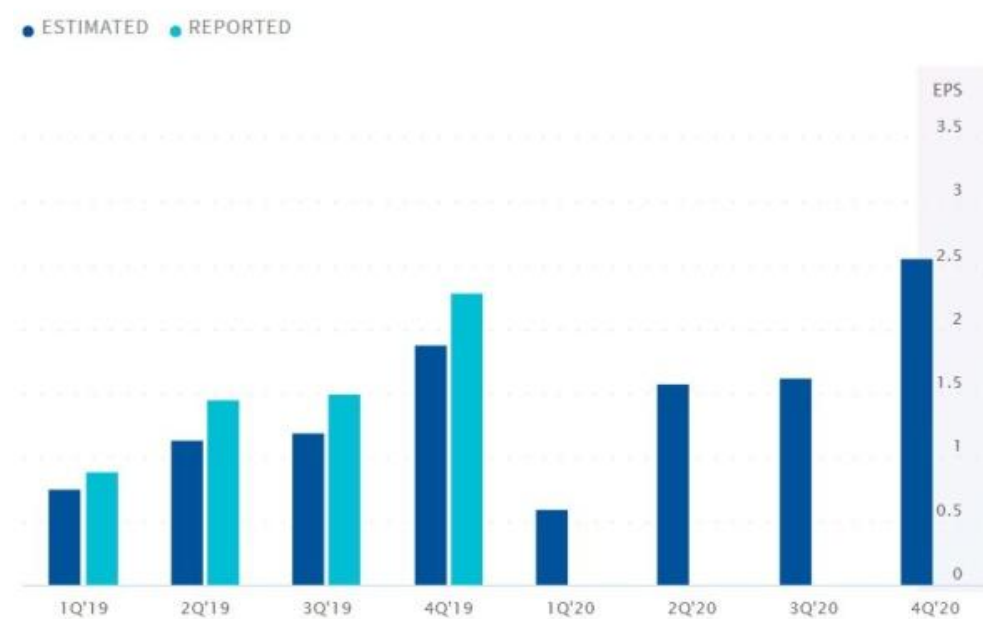
Earnings per share

Earnings per share are the ratio of after-tax profit to total equity and are the net corporate profit or net corporate loss that a common shareholder is entitled to or required to bear for each share held. It is one of the financial indicators used by investors to evaluate the profitability of a business and predict its growth potential.

EPS of Alibaba Group Holding Limited

We can see from Alibaba's quarterly report that in the first quarter of 2019 earnings per share were \$0.88, in the second quarter they were \$1.45, in the third quarter they were \$1.49 and in the fourth quarter they were \$2.88.

Graph4.17: EPS of Alibaba
Earnings Per Share



Source: Nasdaq BABA, <https://www.nasdaq.com/market-activity/stocks/baba/earnings>

We can see from eBay Inc.'s quarterly report that earnings per share were \$0.54 in the second quarter of 2019, \$0.53 in the third quarter, \$0.67 in the fourth quarter, and \$0.67 in the first quarter of 2020.

Graph4.18: EPS of eBay
Earnings Per Share



Source: Nasdaq EBAY, <https://www.nasdaq.com/market-activity/stocks/ebay/earnings>

Our comparison of Alibaba's quarterly report with eBay shows that Alibaba's earnings per share are much higher than eBay's. According to Zacks Investment Research, based on five analysts' forecasts, the consensus EPS forecast for the quarter ending March 2020 is \$0.59, a figure that is also the closest the two companies have ever come. The analyst firm forecasts Alibaba's earnings per share to be \$1.57, \$1.61 and \$2.55, respectively, and eBay's earnings per share to be \$0.66, \$0.59 and \$0.68, respectively, for the second through fourth quarters of 2020. The two companies are relatively close in the first quarter of 2020, in other reporting periods Alibaba's earnings per share were significantly higher than eBay's, Alibaba is more profitable and has enormous growth potential, and investors will be more willing to invest in Alibaba.

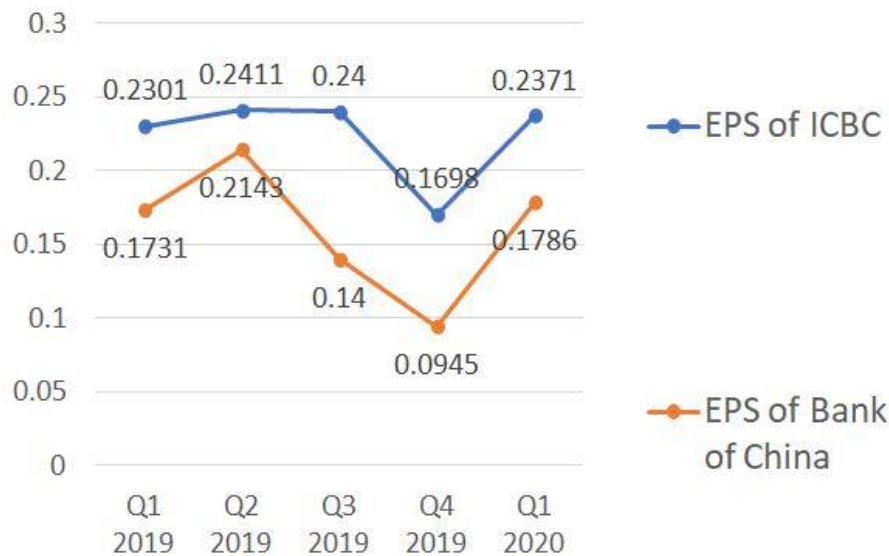
After looking at Alibaba's quarterly reports and professional forecasting agencies' forecasts, we can clearly know that Alibaba's earnings per share are in an upward phase, which indicates that the financial markets, investors and professional forecasting agencies all think that Alibaba is in a growth phase and that it has very high potential, so Alibaba is a company that deserves investors' attention.

EPS of Industrial and Commercial Bank of China Ltd.

ICBC's earnings per share were CNY 0.2371 in Q1 2020, CNY 0.1698 in Q4 2019, CNY 0.2400 in Q3 2019, CNY 0.2411 in Q2 2019, and CNY 0.2301 in Q1 2019.

Bank of China's earnings per share were CNY 0.1786 in Q1 2020, CNY 0.0945 in Q4 2019, CNY 0.14 in Q3 2019, CNY 0.2143 in Q2 2019, and CNY 0.1731 in Q1 2019.

Graph4.19: EPS of ICBC and Bank of China



Source: Eastmoney, Shanghai Stock Exchange, author

ICBC's earnings per share are higher than Bank of China's in every quarter, and both companies are extremely low-risk, and investors will be more inclined to buy ICBC shares.

Alibaba's earnings per share are much higher than ICBC's in every quarter, Alibaba is more profitable and has enormous growth potential. However, Alibaba is riskier than ICBC, and high risk leads to high returns.

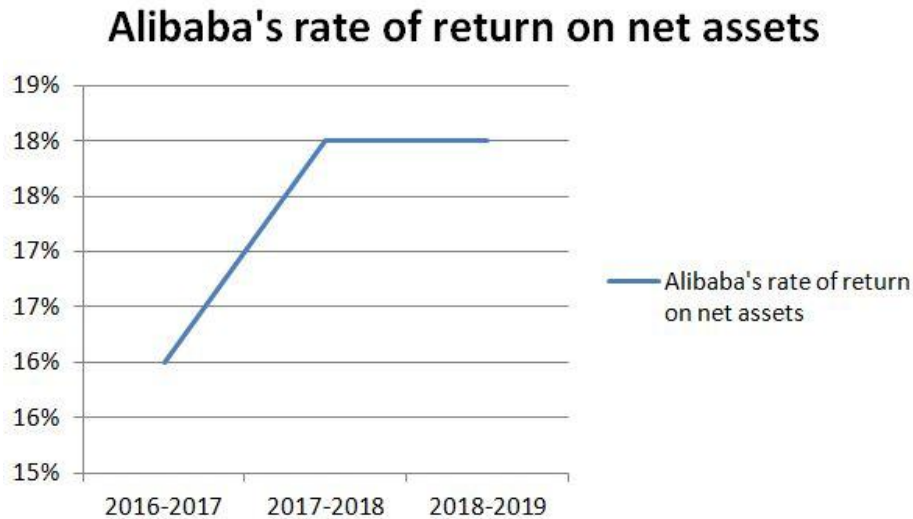
Rate of return on net assets

Return on net assets is the %age of net profit to average shareholders' equity, and this indicator reflects the level of return on shareholders' equity. The higher the value of the indicator, the higher the return from the investment.

Rate of return on net assets of Alibaba

Alibaba's rate of return on net assets was 18% from April 1, 2018, to March 31, 2019, also 18% from April 1, 2017, to March 31, 2018, and 16% from April 1, 2016, to March 31, 2017.

Graph4.20: Alibaba's rate of return on net assets

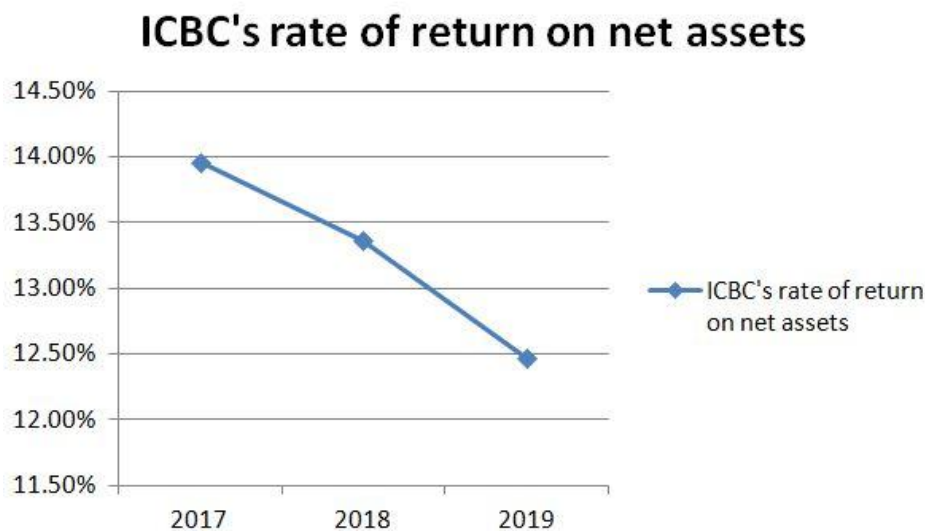


Source: Nasdaq, author

Rate of return on net assets of ICBC

ICBC's rate of return on net assets was 12.47% in 2019, 13.36% in 2018, and 13.96% in 2017.

Graph4.21: ICBC's rate of return on net assets



Source: Eastmoney

Alibaba's NAV has increased year on year, ICBC's NAV has decreased year on year, and ICBC's NAV is much lower than Alibaba's, and investors who buy Alibaba's shares are generating higher returns than ICBC.

ICBC's yield on net assets is not high, with a ratio of total liabilities to total assets of over 90%. In the experience of investors, there are operational risks associated with companies that

do not have a high return on net assets and have a disproportionately high ratio of liabilities to assets. Nevertheless, they are state-owned enterprises and are rarely subject to closure or insolvency. So conservative investors will pay more attention to this company's stock.

4.3 Final summary

At present, there are two IPO systems in the world. One is the approval-based IPO system, and the other is the registration-based IPO system. At present, China implements the approval-based IPO system, while the United States implements the registration-based IPO system. The approval-based IPO system improves the standard of listing and protects investors because companies with low-profit levels cannot be listed in China. Although this system seems to protect every investor, it is an immature performance of the securities market. The registration-based IPO system thinks that investors have strong judgment ability, so its listing standard is relatively low, making many companies with potential but not enough profitability to be listed successfully.

Alibaba's Price-to-earnings ratio is higher than that of ICBC because Alibaba is an Internet enterprise. In recent years, the Internet is accelerating its development, and Alibaba has a very bright future. ICBC is a traditional banking company, and it is a state-owned enterprise in China, so its profitability is not high. Alibaba's price-to-book ratio is much higher than that of ICBC. From the perspective of investment, if an investor wants a high return, he must take a high risk. A conservative investor will choose ICBC's shares because the risk of ICBC is far lower than that of Alibaba. Investors willing to take risks are likely to choose high-risk, high return stocks like Alibaba.

Alibaba has not paid dividends for the time because its major shareholders believe that dividends will affect the development of Alibaba. It is in a rapid development stage, and all investors are looking forward to the rapid rise of Alibaba's share price. Moreover, Alibaba needs much money to develop new products, so investors will not care if Alibaba has dividends. As a traditional company in the traditional industry, ICBC pays dividends to investors every year.

The volatility of Alibaba's share price rose during the global epidemic situation, with the highest value exceeding 60%. ICBC's volatility index has continued to decline over the past year. The impact of the epidemic on the share price of state-owned enterprises is smaller than that of private enterprises, and Alibaba's share price fluctuates more violently. In the past four

years, the volatility of Alibaba's share price is higher than that of ICBC, which shows that the volatility of Alibaba's share price is enormous.

More than 90% of ICBC's assets are obtained by borrowing, while less than 50% of Alibaba's assets are obtained by borrowing. ICBC's short-term repayment pressure is excellent. Both companies' net profits are gradually increasing, while the net cash flow of both companies is becoming negative in 2019.

The earnings per share of Alibaba is much higher than that of ICBC in every quarter. Alibaba has strong profitability and excellent growth potential. Conservative investors are more suitable to buy shares of ICBC, while risk-taking investors are more suitable to buy shares of Alibaba.

5 Conclusion

The goal of this paper is to study the characteristics of IPO, describe the process and results of IPO, and get inspiration for a good IPO. By studying the characteristics of IPO and analyzing the two IPO systems, and focusing on the comparison of the two companies' stock issuance, we finally come to the following conclusions:

IPO has both advantages and disadvantages. Companies need to analyze their situation before deciding whether to issue an IPO. Every stage of IPO preparation is critical because it is related to the development of IPO, so the company must attach great importance to the preparation.

After comparing the two IPO systems, we know that the standard of the approval-based IPO system is higher than that of the registration-based IPO system. The approval-based IPO system protects investors' interests, and the registration-based IPO system makes it possible for most potential companies to go public.

By comparing the information of the two IPOs, we can clearly understand the high risk and high return of Alibaba Group shares, while ICBC is the opposite. Alibaba has strong profitability and greater growth potential than ICBC. Alibaba is a company in the Internet industry, and investors are looking forward to the development of Alibaba. ICBC is a traditional industry company, and conservative investors prefer to invest in ICBC.

Bibliography

Books

ESPINASSE, Philippe. *IPO: A Global Guide*. 2nd ed. China: Hong Kong University Press, 2011. 408 p. ISBN 978-9888083190.

MISHKIN, Frederic S. *The Economics of Money, Banking, and Financial Markets*. 10th ed. U SA: Addison-Wesley, 2013. 720 p. ISBN 978-0-13-277024-8

VALDEZ, Stephen and Philip MOLYNEUX. *An Introduction to Global Financial Markets*. 6th ed. USA :Palgrave Macmillan, 2010. 529 p. ISBN 978-0230243095

Articles in a journal (periodical) or in proceedings

Zhu Yunqing, Wang Wenjuan, Bian Dan. *Competitive strategy analysis of Alibaba e-commerce* [J]. Guide to Business, 2011 (18): 97-99. ISSN 1671-1599

Gao Jingzhong, Zha Yufeng, Tang Keqin. *Comparison of IPO systems between China and the United States and Its Enlightenment on China's registration-based IPO system reform* [J]. The Chinese Certified Public Accountant, 2018 (08): 118-122. ISSN 1009-6345

Li Yan, Yang Gan. *"The registration-based IPO system" in American Law: origin, structure and controversy -- Also on the transplantation and creation of China's the registration-based IPO system reform* [J]. Journal of Comparative Law, 2014 (06): 31-42. ISSN 1004-8561

Liu Beibei, Chen Weiyu. *Comparison of the registration-based IPO system conditions between China and developed countries* [J]. Modern Business Trade Industry, 2017 (07): 50-51. ISSN 1672-3198

Li Xuan, Guo Ying, Xu Hao. *Analysis of the reasons and trends of Chinese enterprises going public in the United States* [J]. Economic Research Guide, 2019 (22): 95-104. ISSN 1673-291X

Xue Bai, Xia Xiufang. *Analysis of Alibaba's overseas IPO* [J]. Modern Business, 2018 (22): 114-115. ISSN 1673-5889

Electronic documents and others

China Securities Regulatory Commission Document "Administrative Measures for Initial Public Offering and Listing of Shares (Order No. 32) http://www.gov.cn/ziliao/flfg/2006-05/18/content_283660.htm

Shanghai Stock Exchange.
http://www.sse.com.cn/assortment/stock/list/info/turnover/index.shtml?COMPANY_CODE=601398

Nasdaq BABA. <https://www.nasdaq.com/market-activity/stocks/baba>

Sina sh601398. <https://finance.sina.com.cn/realstock/company/sh601398/nc.shtml>

Eastmoney 601398. <http://quote.eastmoney.com/sh601398.html>

List of Abbreviations

Abbreviations	
Alibaba	Alibaba Group Holding Limited
Alibaba Group	Alibaba Group Holding Limited
ICBC	Industrial and Commercial Bank of China
P/E ratio	Price-to-earning ratio
P/B ratio	Price-to-book ratio

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Annex 1

Price changes in five years after Alibaba IPO

Date	Opening price	Maximum price	Minimum price	Closing price	Price change	Daily volume(shares)
19.09.2014	92.75	99.70	89.95	93.89		271,879,435
22.09.2014	92.70	94.87	89.50	89.89	-4.00	66,657,827
20.10.2014	88.00	89.50	87.86	88.26	-5.63	9,891,384
21.09.2015	65.38	66.40	62.87	63.90	-29.99	22,351,152
19.09.2016	105.24	105.50	102.20	103.03	9.14	15,228,110
19.09.2017	180.69	180.87	179.25	180.07	86.18	14,743,409
19.09.2018	158.82	163.13	158.82	162.63	68.74	23,028,307
19.09.2019	180.90	184.13	180.43	180.46	86.57	15,160,788

Source: Nasdaq BABA Advanced Charting,

<https://www.nasdaq.com/market-activity/stocks/baba/advanced-charting>

Price changes in five years after ICBC IPO

Date	Opening price	Maximum price	Minimum price	Closing price	Price change	Daily volume(ten thousand shares)
27.10.2006	3.4	3.44	3.26	3.28		258253.96
30.10.2006	3.27	3.32	3.25	3.29	0.01	35192.10
27.11.2006	3.89	3.9	3.76	3.81	0.53	30046.76
29.10.2007	8.01	8.35	7.98	8.17	4.89	30386.65
28.10.2008	3.37	3.88	3.37	3.8	0.52	29485.80
27.10.2009	5.19	5.2	5.07	5.09	1.81	15842.62
27.10.2010	4.44	4.51	4.41	4.45	1.17	15551.04
27.10.2011	4.28	4.31	4.25	4.3	1.02	4284.13

Source: Shanghai Stock Exchange

http://www.sse.com.cn/assortment/stock/list/info/turnover/index.shtml?COMPANY_CODE=601398

Annex 2

Annual yield of Alibaba

Date	Opening price	Closing price	Price change every year	Annual yield	Year
19/09/2014	92.75	93.89			
31/12/2014	106.43	103.94	10.05	10.70%	2014
02/01/2015	104.26	103.60			
31/12/2015	81.48	81.27	-22.33	-21.55%	2015
04/01/2016	78.14	76.69			
30/12/2016	87.57	87.81	11.12	14.50%	2016
03/01/2017	89.00	88.60			
29/12/2017	172.28	172.43	83.83	94.62%	2017
02/01/2018	176.40	183.65			
31/12/2018	141.83	137.07	-46.58	-25.36%	2018
02/01/2019	134.13	136.70			
31/12/2019	212.00	212.10	75.4	55.16%	2019

Source: Nasdaq BABA Advanced Charting,
<https://www.nasdaq.com/market-activity/stocks/baba/advanced-charting>

Annex 3

Annual yield of ICBC

Date	Opening price	Closing price	Price change every year	Dividends	Gain or loss within one year	Annual yield
27/10/2006	3.4	3.28				
29/12/2006	5.9	6.2	2.92	0	2.92	89.02%
04/01/2007	6.3	6.05				
28/12/2007	8.22	8.13	2.08	0.032	2.112	34.91%
02/01/2008	8.14	8.08				
31/12/2008	3.57	3.54	-4.54	0.133	-4.407	-54.54%
05/01/2009	3.59	3.6				
31/12/2009	5.38	5.44	1.84	0.165	2.005	55.69%
04/01/2010	5.43	5.35				
31/12/2010	4.21	4.24	-1.11	0.17	-0.94	-17.57%
04/01/2011	4.24	4.24				
30/12/2011	4.20	4.24	0	0.184	0.184	4.34%
04/01/2012	4.24	4.22				
31/12/2012	4.10	4.15	-0.07	0.203	0.133	3.15%
04/01/2013	4.19	4.22				
31/12/2013	3.56	3.58	-0.64	0.239	-0.401	-9.50%
02/01/2014	3.58	3.58				
31/12/2014	4.73	4.87	1.29	0.2617	1.5517	43.34%
05/01/2015	4.93	5.06				
31/12/2015	4.60	4.58	-0.48	0.2554	-0.2246	-4.44%
04/01/2016	4.58	4.45				
30/12/2016	4.38	4.41	-0.04	0.2333	0.1933	4.34%
03/01/2017	4.4	4.43				
29/12/2017	6.13	6.2	1.77	0.2343	2.0043	45.24%
02/01/2018	6.19	6.18				
28/12/2018	5.3	5.29	-0.89	0.2408	-0.6492	-10.50%
02/01/2019	5.3	5.2				
31/12/2019	5.87	5.88	0.68	0.2506	0.9306	17.90%

Source: Shanghai Stock Exchange,

http://www.sse.com.cn/assortment/stock/list/info/turnover/index.shtml?COMPANY_CODE=601398

NY_CODE=601398

Annex 4

Historical dividends of ICBC

Registration date	Total share capital on the registration date(million shares)	Dividends
2019/7/2	269612.2125	0.2506
2018/7/12	269612.2125	0.2408
2017/7/10	269612.2125	0.2343
2016/7/7	269612.2125	0.2333
2015/7/6	269612.2125	0.2554
2014/6/19	264595.6624	0.2617
2013/6/25	262848.5808	0.2390
2012/6/13	262519.3933	0.2030
2011/6/14	262225.1239	0.1840
2010/5/26	250962.3481	0.1700
2009/6/3	250962.3481	0.1650
2008/6/17	250962.3481	0.1330
2007/6/20	250962.3481	0.0160
2007/6/20	250962.3481	0.0160

Source:Shanghai Stock Exchange,
http://www.sse.com.cn/assortment/stock/list/info/profit/index.shtml?COMPANY_CODE=601398

Annex 5

Balance sheet of Alibaba Group (USD Thousands)

Period Ending:	3/31/2019
Current Assets	
Cash and Cash Equivalents	\$29,537,000
Short-Term Investments	\$1,963,000
Net Receivables	\$0
Inventory	\$0
Other Current Assets	\$8,718,000
Total Current Assets	\$40,218,000
Long-Term Assets	
Long-Term Investments	\$35,943,000
Fixed Assets	\$13,695,000
Goodwill	\$39,424,000
Intangible Assets	\$10,159,000
Other Assets	\$4,169,000
Deferred Asset Charges	\$0
Total Assets	\$143,608,000
Current Liabilities	
Accounts Payable	\$20,148,000
Short-Term Debt / Current Portion of Long-Term	\$4,571,000
Other Current Liabilities	\$6,183,000
Total Current Liabilities	\$30,902,000
Long-Term Debt	\$16,641,000
Other Liabilities	\$921,000
Deferred Liability Charges	\$3,569,000
Misc. Stocks	\$17,310,000
Minority Interest	\$1,015,000
Total Liabilities	\$69,343,000
Stock Holders Equity	
Common Stocks	\$0
Capital Surplus	\$38,375,000
Retained Earnings	\$0
Treasury Stock	\$34,490,000
Other Equity	\$385,000
Total Equity	\$73,250,000
Total Liabilities & Equity	\$143,608,000

Source : Nasdaq BABA Financials,
<https://www.nasdaq.com/market-activity/stocks/baba/financials>

Annex 6

Balance sheet of ICBC (CNY Million)

Period Ending:	3/31/2020
<hr/>	
Current Assets	
Cash and Cash Equivalents	3979997
Other Current Assets	10402981
Total Current Assets	14382978
Other Non-current Assets	17711500
Total Assets	32094478
Total Current Liabilities	28116869
Long-Term Debt	1197315
Total Liabilities	29314184
Total Equity	2780294
Total Liabilities & Equity	32094478

Source: Eastmoney,
<http://f10.eastmoney.com/NewFinanceAnalysis/Index?type=web&code=SH601398#zcfzb-0>